

**GOVERNMENT OF INDIA**  
**MINISTRY OF SHIPPING AND TRANSPORT**

**REPORT OF THE EXPERT COMMITTEE**  
**ON**  
**UNEMPLOYMENT AMONG INDIAN SEAMEN**



MAY, 1969.

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## SUMMARY AND CONCLUSIONS

1. The question of dwindling employment opportunities for Indian seamen has been a cause of anxiety to all concerned for some time.
2. The Minister for Transport and Shipping, in his address to the Fifth Meeting of the National Welfare Board on 18.9.1967 proposed the formation of an Expert Committee to study the problem of increasing unemployment among Indian seamen.(1.1)
3. The Ministry of Transport and Shipping, Government of India, set up on 2.12.1967 Expert Committee to go into the above problem.(1.3)
4. The Expert Committee was required to study the question of unemployment among Indian seamen, likely trends in near future and to suggest remedial action. The Committee was also required to examine the question of manning scale on foreign-going ships.(1.4)
5. At its first meeting at New Delhi on 11.2.1968, the Committee studied basic documents and decided to circulate a questionnaire.(1.5)
6. At its second meeting at New Delhi on 8th and 9th July 1968, the Committee studied replies to the questionnaire and several other papers.(1.6)
7. The Committee felt that it was necessary to improve the technical capability of seamen and consequently appointed a Training Sub-Committee to examine this aspect in detail.(1.9)

8. At its third meeting at Madras on 23rd and 24th August 1968, the Committee heard the Directors of the Seamen's Employment offices, Principal Officer of IHD, Madras, and Technical Officers of shipping companies. The survey conducted by DSEOs indicated a necessity to interrogate seamen at the time of their engagement and discharge. The Committee also decided to refer the Training Sub-Committee's report to shipowners and seafarers.(1.10)
9. At its fourth meeting at New Delhi on 9th & 10th April 1969, the Committee reviewed the comments received and unanimously adopted the report of the Training Sub-Committee.(1.11)
10. At its fifth meeting at New Delhi on 7th May 1969, the Expert Committee approved the final draft of its report unanimously. (1.12)
11. India has a long coastline of more than 5000 kilometers. There are 300 ports plus some important groups of islands to the east and west. Hence, the coastal belt of India has been the home of a large traditional seafaring population since ancient times.(2.1)
12. Since the beginning of the 16th century, European powers dominated international shipping and the national shipping declined. Indian seamen were employed by non-Asian shipping companies in large numbers, but accurate statistics are not available.(2.2)

13. In the old times, shipowners recruited seamen through contractors in order to secure reliable and efficient crews at short notice. The contractors in turn kept close liaison with deck and engine<sup>room</sup>/~~serangs~~ and Chief Stewards. The intermediaries exploited the seamen.(2.3)
14. The International Labour Organisation adopted the Placing of Seamen's Convention (No.9) in 1920, which advocated abolition of intermediaries and establishment of a preferential agency for recruiting seamen. Most of the non-Asian countries and, Japan among Asian countries, ratified and implemented the convention within a short time. (2.4)
15. The Government of India, on advice of the Legislature, decided not to ratify the Convention but to examine methods of recruitment at different ports and to remove the abuses.(2.5)
16. A Committee, designated as the 'Seamen's Recruitment Committee, was appointed to investigate the employment of seamen. The Committee recommended abolition of the system of licensed brokers, Ghat Serangs and Butlers, imposition of a ban on the indirect selection of leading ratings, and establishment of special employment bureaus. The recommendations of the Committee were opposed by several interests. Hence the Government confined itself to curtailment of privileges of the contractors and to control of selection of leading ratings through Shipping Masters and Shipowners.(2.6, 2.7)

17. The Royal Commission on Labour in India (1931) studied the problem of Indian seamen and recommended abolition of the system of licensee brokers. Between 1932 and 1938, action was taken to withdraw the licences of brokers and towards restricted issue of new Continuous Discharge Certificates.(2.8, 2.9)
18. Despite some changes, scope for corruption persisted. The leading ratings were allegedly obliged to pay heavy bribes and they in turn exploited other seamen whose selection largely depended on their discretion. (2.10)
19. Excessive supply of Indian seamen continued to be the basic source of the malady. It was estimated in 1935 that while the employed seamen numbered 59,000, the number of unemployed seamen ranged between 1,13,000 and 1,76,000.(2.11)
20. Various methods adopted from time to time to ameliorate the employment conditions of Indian seamen could hardly bring any change in the ultimate situation over years. The Government of India convened a Tripartite Maritime Labour Conference in 1947 to examine this vexed question afresh. It was revealed that there were nearly 3,00,000 seamen against hardly 65,000 jobs.(2.12)
21. The shipowners and the seafarers desired to reorganise the recruitment system between themselves. Maritime Boards, with equal representation of shipowners and seafarers, were set up at Calcutta and Bombay to introduce 'Joint Supply System'. This system produced

little impact, largely due to plentiful supply of seamen.(2.13)

22. As the Joint Supply System failed, Government amended the Indian Merchant Shipping Act, 1923, and assumed powers to set up Seamen's Employment offices in order to regulate and control the recruitment and promotion of seamen. (2.14)
23. The I.L.O. organised the First Asian Maritime Conference in October 1953 and adopted resolutions recommending that Governments of maritime countries review their system of recruitment and initiate measures to eliminate defects in the prevailing system.(2.15)
24. As bipartite efforts had proved ineffective, Government adopted the alternative suggested by the Placing of Seamen's Convention, and established Seamen's Employment Offices at Bombay (1954) and Calcutta (1955) as a part of Government machinery. A Seamen's Employment Scheme was evolved. Seamen's Employment Boards, consisting of equal number of representatives of shipowners, seafarers and the Government, were set up. (2.16)
25. The salient features of the Seamen's Employment Scheme were, compilation of authentic records, provision of employment on rotational basis, elimination of unsuitable seamen, programming of future entrants and assessment of magnitude of related social aspects.(2.17)

26. In the past, due to lack of organised pre-sea training, the attainment of a high standard of efficiency was largely a matter of personal initiative and ambition. Need for ensuring high standard of efficiency was keenly felt in view of modern trends in ship operations. A training scheme for ratings was brought into force in 1950-51 with the commissioning of two afloat training establishments. A shore establishment was later set up in 1955. (2.18)
27. Considerable improvement has been brought about in the old situation. The present position can be summarised as follows: (a) the licensed brokers and fee-charging agencies have been eliminated, (b) effective restriction has been imposed in order to regulate the number of seamen, (c) Seamen's Employment Offices have been established at Bombay and Calcutta to ensure equitable distribution of employment and (d) training for deck and engine room ratings <sup>is</sup> imparted through Ratings Training Establishments in order to introduce a minimum standard <sup>of efficiency</sup> among ratings. (2.19)
28. Surplus availability of seamen has been an endemic feature of seamen's employment in India. As on 1.1.1956, jobs available at Bombay were 21053 as against 29023 registered seamen. The number of jobs came down to 18,308 as against 23840 seamen on 1.1.1969. Similarly, jobs available at Calcutta dropped down from 14400 as on 1.1.1956 to 7670 as on 1.1.1969.

while the number of registered seamen came down from 18,461 to 12,705.(3.1)

29. The highest number of jobs were available at Bombay in 1958 and at Calcutta in 1957. Since then there has been a persistent decline, the decline being very steep at Calcutta.(3.2)
30. It has been the general practice to maintain rosters at 150% of the number of jobs available. The number of surplus seamen over and above the 50% margin on actual number of jobs has slightly declined at Bombay and Calcutta during 1968.(3.4, 3.5)
31. In 1947 about 90% of Indian seamen were employed on foreign flag ships. The percentage has come down to 67% for Bombay and 75% for Calcutta due to steady growth of Indian tonnage and reduced employment opportunities on foreign ships. The number of seamen employed by the British ships has persistently gone down, while the number of seamen employed by other foreign ships has gone up to some extent. Non-British foreign shipowners select their crews from Bombay and not from Calcutta. However, British ships remain the largest employers of Indian seamen. (3.6, 3.7)
32. The number of Indian ships recruiting crews has shown a steady increase, but there is a corresponding decline in the number of foreign ships engaging Indian crews. At Bombay, decline in the latter is compensated by increase in the former, but this has not been possible at Calcutta. (3.8, 3.9)



33. Between 1963 and 1969, at Bombay, the number of ships employing Indian seamen has remained the same while the number of jobs available has gone down by 10.6%. A change in the manning policy of foreign ships largely accounts for this. A similar situation is revealed by a comparison of overall number of ships recruiting crews and the number of jobs available.(3.9)
34. Passenger ships which traditionally employ large crews are going out of business due to stiff competition from air transport. Keen competition from new markets for seamen like Africa, Pakistan and South-East Asia has also affected the chances of Indian seamen.(3.10, 3.11)
35. World tonnage is increasing year by year, but the fastest rate of growth is recorded by the socialist countries who along with new developing countries generally employ their own nationals as seamen. This restricts the employment opportunities for Indian seamen.(3.12)
36. Mounting costs and stiff competition have prompted automation and employment of general purpose crews, which have reduced manning scale of foreign ships. This trend is likely to continue in future. (3.13, 3.14)
37. During the last decade, world tonnage has increased by 64.3%. But a substantial portion of the larger world tonnage has been provided by the increased size of super tankers and bulk carriers which does not get reflected in increased requirement of crews. (3.15)

38. The container ships have brought about a revolution. Being fast and having a large capacity, they replace 3 to 7 conventional cargo liners. (3.16)
39. Merchant navy career is now much more attractive than what it was in the past, hence more nationals of advanced maritime countries offer themselves for employment. (3.17)
40. Remarkable growth of Indian shipping in recent years, specially in liner sector, has resulted in proportionately lesser number of foreign ships coming to India. Foreign ships which do not call at Indian ports hesitate to engage Indian seamen as repatriation expenses are high. (3.18)
41. The present system of limiting the employment of Indian seamen within certain latitudes and longitudes during winter months tends to restrict their employment, particularly on super tankers. (3.19)
42. Increasing sophistication on modern ships and lack of capacity to converse in English have acted as handicaps for the Indian seamen. This handicap can be removed through adequate and rigorous pre-sea training. (3.20)
43. Indian seamen have won recognition from British shipowners over a century for their devotion to duty and efficiency. The Committee has emphasised that Indian seamen should demonstrate superior standard of discipline as it can lead to improved employment potential. Even minor cases

of indiscipline affect employment opportunities. Leaders of Seamen's Unions should also continue to deal with the seamen's problems in a manner as would create the right impact and promote harmonious relationship.(3.21)

44. Occasional enquiries are received from certain European countries regarding prospects of employing Indian seamen. But they do not have accredited agents or representatives in India to deal with various employment problems. These countries can become a good source for employment.(3.22)
45. The number of jobs available has declined sharply compared to the number of seamen. Though the general waiting period ranges between 3 to 9 months, some seamen have had to wait for 12 months or even longer. The position at Calcutta is worse than that at Bombay. Paradoxically enough, in certain cases shipowners do not get adequate response from the seamen against calls to muster.(3.23,3.24)
46. General consensus among about 200 seamen interviewed at Bombay and Calcutta was that they required only 2 to 3 months' rest between two successive employments. At Bombay, about 25% of seamen got alternate jobs during "off articles" period. At Calcutta, only 10% of seamen could get such opportunity. (3.30)
47. Many variables, such as recent technological changes, new manning policies of foreign shipping lines, and comparative decline of the importance of foreign ships in India's international trade, make any attempt at estimation of requirements of Indian seamen difficult. (4.1)

48. The strength of manpower in the British merchant navy, which is the largest employer of Indian seamen, has come down from 1,52,470 in 1957 to 99,703 in 1968. (4.2)
49. The Committee feels that a further reduction in the level of employment of Indian seamen in foreign ships is inevitable and concludes that reduction on this account till 1974 may be reckoned as 10% of the number of jobs held in 1969, excluding general purpose rosters. (4.4)
50. Rapid expansion of Indian shipping during the Fourth Plan is likely to bring about increased job opportunities. But this is likely to be counterbalanced to some extent by reduction in conventional manning scale and possibility of employment of integrated crews on Indian ships. During the Fourth Plan a net addition of 60 vessels to the Indian fleet resulting in about 2600 additional jobs is expected. (4.5)
51. Some Indian shipping companies are already considering employment of integrated crews. The Committee concludes that for the Indian shipping industry to remain internationally competitive, a review of its manning policy in the near future is imperative. A provision for a reduction by 10% in the number of jobs on Indian vessels may be envisaged on this account during the course of next six years. (4.6)

52. By the end of the Fourth Plan period (1974), the net jobs available for Indian seamen are estimated to be about 26,600 as against 26,060 seamen registered at present. (4.9)
53. Between 1964 and 1967, the average annual wastage of seamen was 1789 at Bombay and 588 at Calcutta. A causewise and categorywise analysis of wastage has been made. The wastage was significantly more at Bombay as compared to Calcutta except on account of medical unfitness. (4.10 & 4.11)
54. Annual wastage at Calcutta has come down from 4.7% in 1966 to 3.6% in 1968. As a large number of seamen registered at Calcutta is in a younger age group, the Committee recommends a provision of 3% per annum wastage on this account till 1974. For Bombay, the provision suggested is 5% per year. (4.12 & 4.13)
55. The Committee has suggested a four-pronged line of action based on creation of an effective seamen force whose sole occupation is sea-faring, regularity of employment, improvement of quality of training, and further restrictions on fresh intake of trainee ratings. (5.1)
56. A large surplus of maritime labour and a rather loosely framed employment procedure<sup>evolved</sup> due to historical reasons, tend to cultivate a situation where underemployment among seamen and poor response to calls for jobs subsist side by side. In the opinion of the Committee, the time

is now ripe for a more scientific approach to this long outstanding problem. An effort should be made to attain a proper working balance between the number of registered seamen and the number of jobs available. Simultaneously, the shipowner must have an assured supply of crew and the seaman an assured job. (5.2 & 5.3)

57. The Committee recommends that the percentage of seamen on rosters should be brought down gradually over a period of years from the existing level of 160% of the number of jobs to a level where every seaman desirous of obtaining a job is assured of employment after about 3 months from the date of his discharge from previous employment. Certainty must replace uncertainty and apprehension on either side. The shipowners must get seamen when required and seamen should also know precisely when they should be ready for the next voyage. The Committee warns against undue haste in the reduction of rosters as it would be against the interest of both parties and recommends that the matter be kept under careful and constant review. (5.3)
58. The Committee is convinced of the need to improve the technical <sup>capability</sup> and efficiency of Indian seamen so that they acquire greater professional skill and knowledge and can compete with seamen from other countries. (5.4)
59. The question of training was examined thoroughly by a special Sub-Committee and recommendations have been made to effect substantial changes in the curricula of pre-sea training with consequent expansion of training period from 4 to 6 months. (5.5)

60. Suggestions have also been made for application of more rigid standards for selection of trainees. 8th standard passed has been recommended as the minimum educational qualification. (5.6)
61. The Committee understands that the question of revision of medical standards for seamen is receiving Government's attention. It feels that in view of the growing responsibility of seamen and competition from other sources, more stringent medical standards should be introduced. (5.7)
62. The Committee has also recommended institution of some special courses for officers and ratings. Particular emphasis during regular training on personnel management and human relations has also been suggested. (5.8 & 5.9)
63. It is important to supplement pre-service training with inservice training, and shipowners are advised to evolve proper schedules for this purpose. (5.10)
64. The Committee does not recommend a total suspension of fresh recruitment. But it advocates a balanced approach so that 50% of the annual wastage of ratings is made good by fresh recruitment and the balance 50% is offset against the surplus availability of ratings. Annual recruitment of 600 deck and engine<sup>room</sup>/trainees and 300 recruits for the saloon side is recommended subject to an annual review. (5.11 & 5.12)

65. After taking into account the absorption pattern of ratings at Bombay and Calcutta, the Committee recommends that the intake should be apportioned between the two centres in the ratio of 35:15.(5.14)
66. The Committee has taken note of accumulation of 600 trainees at Calcutta and has spelled out specific measures to relieve the situation.(5.15)
67. The Committee recommends that Government should review the Ratings' Training Establishments keeping in view the proposed reduction in intake and suggestions for more intensive training.(5.16)
68. The Committee notes with satisfaction that "one call system" has been enforced at Calcutta from October, 1968 and is expected to be put into effect at Bombay in the middle of 1969. It attaches great importance to the implementation of this system as it is likely to have a salutary effect on the regularisation and stabilisation of employment of seamen. (5.17)
69. The Committee recommends that future vacancies in Home Trade sector should be filled by rating-trainees or foreign going seamen, who should be allowed, under certain conditions, to come back to the foreign going sector. (5.18)
70. The Committee suggests rigid enforcement of retirement age. It also recommends that seamen falling in the age group of 50 to 60 years should be encouraged to seek voluntary retirement through relaxation of rules



regarding payment of gratuity and provident fund.

This would help in achieving a satisfactory balance between number of jobs and seamen registered. (5.19)

71. Taking note of the historical background regarding manning scales applicable to Indian and foreign crews, the Committee feels that the scale of manning for Asian seamen as compared to other seamen is linked with the question of wages and hours of work. Since the bulk of Indian seamen are employed by British Ships and U.K. has not ratified the I.L.O. Convention pertaining to wages, etc., reduction in manning scales in the absence of adequate safeguards regarding other related factors is likely to aggravate unemployment among seamen without adequate compensating advantages to them. The Committee also notes that the questions regarding wages, hours of work and manning are under constant review between the representatives of shipowners and seafarers and that there is a tendency towards gradual narrowing down of differences between the Asian and non-Asian seamen in respect of manning scales and related matters. But the achievement of uniformity is likely to take many years. (6.1)

72. As the Committee has recommended a curtailment in the intake of fresh trainees, it cannot recommend acceptance of the request of the Nautical and Technical Institute and Seamen's Orphanage, Nhava Island, Bombay, for expansion of its training programme. (6.2)

73. The Committee agrees with the National Shipping Board that in view of large scale unemployment among seamen, the question of permanency of their employment cannot be considered at this stage. (6.3)
74. In formulating its views, the Committee has taken into consideration recommendations pertaining to seafarers made by the Committee on Shipping of the National Conference on Shipping, Shipbuilding and Ports held at New Delhi from December 16 to 18, 1967. (6.4)
75. The Committee also considered the question of provision of suitable reorientation and retraining courses for seamen to equip them for allied occupations in shore industries. The Committee is of the view that there is no need for any special arrangements in this respect. (6.5)



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C.P. Srivastava,

Chairman,  
Expert Committee on Unemployment  
among Indian Seamen.

Dated: May 28, 1969.

The Secretary to the Govt. of India,  
Ministry of Shipping & Transport,  
Transport Bhavan,  
NEW DELHI

Dear Sir,

Report of the Expert Committee on  
Unemployment among Indian Seamen.

I have the honour to refer to your letter No. 14-MT  
(13)/67 dated the 2nd December, 1967, to the Director General  
of Shipping, appointing an Expert Committee to go into the  
question of unemployment among Indian seamen and to state  
that the Committee has finalised its report which is submitted  
herewith for the consideration of the Government of India.

Yours faithfully,

Sd/-

(C.P. Srivastava)

Encl :

## CHAPTER - I

### APPOINTMENT OF EXPERT COMMITTEE

Employment of  
Seamen - cause  
of concern.

2.1 The declining employment opportunities for Indian seamen and the large number of underemployed men has been exercising the attention of various interests concerned for some time, including representatives of the seafarers and the Government of India. The then Minister for Transport and Shipping took note of this anxiety in his opening address to the Fifth Meeting of the National Welfare Board for Seafarers, at Madras, on September 18, 1967. The Minister also mooted the idea of the appointment of an expert committee to go into this problem. The following extract from the Minister's speech on the occasion is relevant.

"I would like to say a word to the shipowners present here today. They know that we have a large band of trained, efficient and experienced seamen in our country. They are also aware that of late, because of number of factors like the advent of tankers and bulk carriers, installation of devices for automation and other technological advancements on board ships and the gradual reduction in the scale of manning, the number of jobs for Indian seamen has registered a sharp decline during recent years. While steps are being taken by Government to review the position from time to time and to take suitable remedial measures, a humane approach to the problem of large scale unemployment among Indian seamen on the part of shipowners will be of considerable help in tackling the situation. In any case, I must tell you that I feel concerned about the situation. I propose, therefore, to appoint an Expert Committee to go into the question of existing unemployment among Indian seamen and likely trends in the same in the near future, and to suggest possible remedial action."

Need also stressed by the Merchant Navy Training Board. 1.2 The problem of large scale unemployment among Indian seamen was also brought up at the 7th meeting of the Merchant Navy Training Board held at New Delhi on 27th October 1967. The Board endorsed the proposal of the then Minister for Transport & Shipping for the appointment of an Expert Committee to go into this question and urged early action in the matter.

Composition of the Expert Committee.

1.3 The Government of India in the Ministry of Transport and Shipping set up an Expert Committee consisting of the following to go into the question of unemployment among Indian seamen vide their letter No.14-MT(13)/67, dated the 2nd December 1967 (Annexure I).

1. Shri C.P.Srivastava, Chairman  
Chairman & Managing Director,  
Shipping Corporation of India Ltd. Chairman
2. Shri R.T.Parthasarathy, Member  
Member of Parliament. Member
3. Mr. J.W.Anson with  
Capt. J.P.Mason Price as  
alternate member -  
Representing Owners/Agents'  
Committee(Crews), Bombay. Member
4. Capt. A.B.McSweeney with  
Shri N.Latif as  
alternate Member -  
Representing Calcutta Liners'  
Conference(Crews), Calcutta. Member
5. Shri G.D.Ved,  
Representing Indian National  
Shipowners' Association. Member
- 6-7 Shri K.K.Khadilkar and  
Shri Leo Barnes,  
Representing National Union  
of Seafarers of India, Bombay. Members

8. Shri Bikas Majumder with  
Shri M.C.Bharadwaj as  
alternate Member -  
Representing National Union of  
Seamen of India, Calcutta. Member
9. Capt.Indrajit Singh,  
Captain Superintendent,  
T.S."Bhadra", Calcutta. Member
10. Shri P.N.Anand,  
Deputy Director General of Shipping,  
Bombay. Member - Secretary

Terms of  
reference.

1.4 The Expert Committee was required to study the question of unemployment among Indian seamen and likely trends in this field in near future and to suggest remedial action. The Committee was also called upon to examine the question of manning scale on foreign-going ships as recommended by the Committee on Public Undertakings on the Shipping Corporation of India Ltd. in its report submitted in April 1965. The relevant recommendation (No. 28) from the Committee's report is reproduced below:

" It is noticed that Indian shipping companies generally employ more crew than foreign shipping companies for manning vessels of comparable size. This has been the case with regard to Shipping Corporation also. The Committee were also informed that the Seamen's Union was strongly opposed to any reduction in number. During evidence, the Committee learnt that a separate crew concept was evolved for the Asian Crew at the International Labour Conference. The Committee recommended that the entire question may be examined by the Government at the appropriate levels".

Procedure  
adopted by  
the Commi-  
ttee.

1.5 Two basic documents providing information about the number of available jobs, number of Indian seamen registered with the Seamen's Employment Offices,

intake of the Ratings Training Establishments and other related matters were circulated to the Committee members to provide background information. The Committee held its first meeting at New Delhi on February 11, 1968 and discussed the terms of reference generally and evolved a broad procedural approach towards its task. One of the important decisions was to circulate a questionnaire on the subject (Annexure II) among all interests concerned with the employment of Indian seamen.

1.6 At its second meeting on July 8 and 9, 1968, at New Delhi, the Committee studied several papers, including a consolidated statement of replies from Indian and foreign shipowners, the Unions of Seafarers and other parties to the questionnaire mentioned above, data regarding annual wastage of seamen under different heads, statements showing excesses and shortages and rosterwise waiting period, suggestion from the National Union of Seafarers of India, Bombay, regarding voluntary retirement of seamen of over 50 years of age, views of the Directors of Seamen's Employment Offices regarding normal and ad hoc musters and their functioning, etc.

1.7 The information presented to the Committee showed that while, on the one hand, the number of seamen registered in general and company rosters was in excess of the prescribed level and the waiting period was also indicative of large scale unemployment, on the other hand, the response to calls for employment generally stood around 40% to 50% leading to serious difficulties for the

shipowners and to the constitution of ad hoc musters.

1.8 To go deeper into this apparent contradiction, the Directors of Seamen's Employment Offices were requested to undertake sample survey of the pattern of seamen behaviour for a period of a few weeks with the assistance of the local representatives of shipowners and seafarers.

1.9 The replies received to the questionnaire mentioned in para 1.5 above, indicated that it was very necessary to improve the technical capability of the seamen and that they should be equipped adequately for the job requirements of the future. Consequently, the Committee decided to appoint a Training Sub-Committee to go into the whole question of training of ratings and to submit its report to the next session of the Committee. Captain Indrajit Singh, Captain Superintendent, Training Ship T.S. 'Bhadra', Calcutta was appointed Convenor of the Sub-Committee and the representatives of shipowners and seafarers at Calcutta and the Engineering Officer, T.S. 'Bhadra' were appointed as its members.

1.10 The third meeting of the Committee was held at Madras on August 23 and 24, 1968. The Directors of the Seamen's Employment Offices who had been requested to study the behaviour pattern of Indian seamen were invited to render oral evidence to the Committee at this meeting. The Committee also heard Capt. N.M. Bharsal of the South India Shipping Corporation Ltd., Madras, Capt. G.W. Thompson of the Mobil Group and Shri K. Parthasarathy, Principal Officer, Mercantile Marine Department



Madras. The survey conducted by the Directors of the Seamen's Employment Offices indicated that to get a deeper insight into the behaviour pattern of Indian seamen, it was necessary to interrogate the seamen at the time of their engagement and discharge through representatives of seafarers and shipowners. It was also decided to refer the report of the Sub-Committee, which was presented to the Committee at this meeting, to the representatives of shipowners and seafarers for their comments.

1.11 The fourth meeting of the Expert Committee, which was held at New Delhi on April 9 and 10, 1969, reviewed the comments received from various quarters on the report of the Training Sub-Committee and the views expressed by the representatives of shipowners and seafarers after detailed investigations at the Seamen's Employment Offices at Bombay and Calcutta. The report of the Training Sub-Committee was adopted unanimously. The Committee members also agreed on conclusions regarding basic issues concerning level of employment for the Indian seamen, which is likely to be available in the near future, the anticipated annual wastage among registered seamen and the desirability of continued infusion of new blood from the training establishments and maintenance of roster strength at a level required for smooth and satisfactory operation of ships.

1.12 At its fifth meeting at New Delhi on May 7, 1969 the Expert Committee approved the final draft of its report unanimously.

Acknowledgements. 1.13 The Committee places on record its gratitude to

the former Minister of Transport and Shipping, Prof. V.K.R.V.Rao, for his deep and abiding interest to the problems of seamen. The Committee is also indebted to Indian and foreign shipping companies, organisations of seamen, Directorate General of Shipping, and Directors of Seamen's Employment Offices at Calcutta and Bombay for their cooperation and for providing valuable information for the work of the committee.

Thanks were also due to the officers of Training Ship 'S' Bhadra who gave considerable assistance to the Training Sub-Committee. The Committee is particularly grateful to Captain N.N.Bhansali, Capt.G.W.Thompson, Shri K.Parthasarathy, Shri S.K.Bose and Shri Trilok Singh for rendering oral evidence and for making several important suggestions. The Committee wishes to place on record its deep appreciation of the valuable work done by Captain Indrajit Singh as Convenor of the Training Sub-Committee and by Shri P.N.Anand as Member-Secretary of the Committee. The Committee would like also to acknowledge the very valuable help, which it received from Shri L.M.S.Rajwar, Joint Manager, Shipping Corporation of India Ltd. in the preparation of this report.

CHAPTER - II

HISTORICAL BACKGROUND OF EMPLOYMENT OF SEAMEN

Traditional  
Seafaring  
Population.

2.1 The very name of the ocean which washes the shores of the Indian peninsula is suggestive of the position held by India in this part of the maritime world. Indian mainland has a long coast line of more than 5,000 Kilometers having about 300 ports. Besides, there are important groups of islands viz. Andaman and Nicobar Islands on the east and Laccadive, Minicoy and Amindiv Islands on the west. From ancient times Indian ships and seamen have sailed the seas of the world and carried regular trade with China, South East Asia, Middle East, Europe and Africa. Consequently, the coastal belt of India has been the home of a large traditional seafaring population.

2.2 The advent of European powers on the scene in the beginning of the 16th century gave a new direction to the employment of Indian seamen. The western powers dominated the sea routes between the east and the west. National shipping declined. But large numbers of Indian seamen found employment with foreign vessels and from the middle of the 19th century Indian seamen are understood to have been regularly employed on non-Asian vessels. There is no reliable evidence to indicate how large this employment was. Some estimates suggest that the number of Indian seamen issued with Continuous Discharge Certificates available for employment in Indian ports was about

2,50,000 at one time. At any rate, there can be no doubt that a large maritime labour force was available and found employment in ships flying foreign flags. The labour force grew haphazardly and there was no relationship between the number of jobs and the number of men available.

Old recruitment system.

2.3 The system of recruitment of Indian seamen was greatly influenced by three features. First, the supply was much in excess of the demand. Second, the seamen tended to function in groups based on their village or home district or attachment to a particular Serang. Common bonds of religion, language and living and food habits also sustained this tendency. Third, there was no regulatory agency which could protect the legitimate interests of the seafarers. Consequently, a system of intermediaries and contractors thrived along with various malpractices and exploitation of the labour force. The shipowners depended upon contractors for supply of crews. (Later on the arrangement was formalised through issue of special licenses to the contractors for the supply of seamen under the Indian Merchant Shipping Act, 1923). The contractors, in turn, maintained a close liaison with leading hands of each department, viz. deck and engine room Serangs and Chief Stewards. The seamen were completely dependent upon various intermediaries for employment who extorted considerable unofficial fees from the seamen. The shipowners functioned

through the contractors in order to secure reliable and efficient crews at short notice and for this purpose paid a certain fee to the contractors.

Placing of  
Seamen's  
Convention,  
1920.

2.4 The seafarers and their organisations had been pressing for the establishment of proper organisations for the recruitment of seamen. The International Labour Organisation took steps to focus the attention of Member Governments on the subject by adopting at its Second (Maritime) Session in Genoa, in 1920, the Placing of Seamen's Convention, 1920(No.9), which advocated the abolition of fee charging agencies and the establishment of free employment agencies by representative associations of shipowners and seamen jointly under the control of a central authority or failing that by the State itself through persons having practical maritime experience. Most of the non-Asian maritime countries accepted and implemented the Convention within a short time. In Asia, Japan took the lead in implementing a satisfactory procedure for the recruitment of her seafarers, and promulgated the Seamen's Employment Exchanges Act in 1922, which is largely modelled on the provisions of the Placing of Seamen's Convention.

Seamen's  
Recruitment  
Committee.

2.5 The Government of India also considered the question of ratification of the Placing of Seamen's Convention, 1920. However, upon the advice of the Legislature obtained in September 1921 it was decided not to ratify the Convention but to undertake an

examination of the methods of recruitment of seamen at different ports in India in order to ascertain definitely whether abuses existed, and, if so, what remedial action could be taken.

2.6 A Committee designated as the 'Seamen's Recruitment Committee', more popularly known as the 'Clov Committee', was appointed to investigate the employment of seamen. The prevailing situation was summarised by the Committee in the following words.

"The preliminary investigations conducted by the Sub-Committees at Bombay and Calcutta (main centres for recruitment of seamen) disclose a state of affairs which we regard as highly unsatisfactory. Generally speaking, it may be stated that while bribery is serious among certain sections of the seamen in Bombay, it takes in Calcutta, as far as the Deck and Engine-room crews are concerned, the form of systematised extortion. The serious unemployment existing among seamen and the temporary character of their employment, are undoubtedly responsible to some extent for the aggravated bribery now found to exist. But the chief and immediate cause is the presence of interested intermediaries who come between the shipowners and the seamen, viz. the brokers and Ghat Serangs, who have been able to influence the selection of seamen".

2.7 The Seamen's Recruitment Committee recommended the abolition of the system of licensed brokers, Ghat Serangs and Butlers. The Committee also recommended imposition of a ban on the selection of leading ratings (Deck and Engine-room serangs and Butlers) except directly by the shipowners or through the Shipping Master and the establishment of special employment bureaus in consonance with the recommendation of the Placing of Seamen's Convention. The

recommendations of the Committee were opposed by several interests. Hence, the Government of India confined itself to a curtailment of the privileges of the licenced contractors (brokers) and to control of selection of leading ratings through the Shipping Masters and the shipowners. Under the new arrangements, the licenced brokers were permitted to supply lower categories of ratings wherever vacancy occurred immediately before the sailing of a vessel.

Royal Commission  
on Labour in  
India, 1931.

2.8 The employment conditions of Indian seamen were also studied, though in a much wider context, by the Royal Commission on Labour in India, 1931. The Commission came to a conclusion that licensed shipping brokers were unnecessary and recommended a withdrawal of their licences. The Commission also noted with concern the excessive supply position of Indian seamen and, in this context, observed as under.

"The preliminary need is the elimination of surplus seamen until a state is reached when the numbers are such that, on the one hand, the reasonable needs of the industry are satisfied and, on the other, capable seamen are assured of reasonable regularity of employment".

2.9 The recommendations of the Commission remained under consideration for several years as some of them were held to be impracticable or too costly. Between 1932 and 1938, action was, however, taken to withdraw the licenses of shipping brokers and towards restricted issue of new Continuous Discharge

Certificates. Instructions were also issued to the Shipping Masters to exert their influence to discourage the employment of seamen who had no entries on their Continuous Discharge Certificates for three years or longer.

Dissatisfaction persists.

2.10 Despite some changes, corruption and its possibilities in connection with employment of seamen continued. Even though powers of licenced brokers had been curtailed, chances of collusion among other parties involved remained as large as ever. The leading ratings - Serangs and Butlers - who were directly selected were allegedly obliged to pay heavy bribes, and they, in turn, tried to obtain pecuniary satisfaction from other members of the crew whose selection largely depended upon their discretion.

2.11 Excessive supply of Indian seamen and consequent unemployment among them continued to be the basic source of the malady. Reliable data are not available, since registration of seamen was not yet in vogue. But an idea can be had from some assessment made by the Government of India. According to these estimates in 1935 the number of Indian seamen employed was about 59,000 and of unemployed seamen about 1,13,000. The seafarers' organisation, however, claimed a much larger availability of seamen and placed their total number in the neighbourhood of 2,35,000 (Calcutta - 1,40,000, Bombay - 70,000 and Karachi - 25,000).



Tripartite  
Maritime  
Labour  
Conference, 1947.

2.12 The methods adopted from time to time to ameliorate the employment conditions of Indian seamen were aimed at a gradual advancement towards elimination of intermediaries and the eradication of malpractices inherent in the old system. But there was hardly any change in the ultimate situation over the years. This may have been prompted to some extent by the fact that over 90% of Indian seamen were employed on foreign ships and it was apprehended that drastic changes might adversely affect potential employment opportunities for Indian seamen. Hence, the Government of India convened a Tripartite Maritime Labour Conference in 1947 to examine afresh this vexed question. It was revealed that there were nearly 3,00,000 seamen against hardly 65,000 jobs. The need for evolving immediate remedial measures was evident to all concerned. As the representatives of shipowners and seafarers desired that in the first instance they may be allowed to reorganise the recruitment system between themselves in the light of 'Placing of Seamen's Convention', the intention of the Government of India to establish state-run Seamen's Employment Offices was deferred for the time being.

Joint Supply  
Systems.

2.13 This led to the establishment of Maritime Boards at Calcutta and Bombay. The Boards, which were established on a bipartite basis, consisted

of equal number of representatives of shipowners and seafarers. These arrangements, which came to be known as Joint Supply Systems, envisaged mutual discussion regarding condition of seafarers and a joint system for their recruitment. But, largely due to plentiful supply of seamen, these systems produced but little impact either at Bombay or Calcutta. The Maritime Boards were also unable to secure full cooperation from the organisations of seafarers on account of internecine rivalry among different organisations of the seafarers.

Amendment of the Indian Merchant Shipping Act, 1923, towards opening of Seamen's Employment Offices.

2.14 The Joint Supply Systems having failed, the Government of India decided, after consultation with the organisations of shipowners and seafarers, to set up special employment offices under State auspices in order to make a concerted endeavour to eradicate the longstanding malpractices and to provide for a rational and rotational system of employment to seamen. The Government, accordingly, by an amendment to the Indian Merchant Shipping Act, 1923, assumed powers in 1949, to set up the Seamen's Employment Office vide section 25(A) of the I.M.S. Act, 1923. The Seamen's Employment Offices are intended to serve the following purpose.

"(a) To regulate and control

- i) the supply of such categories of seamen and for such class of ships, as may be prescribed;
  - ii) the recruitment of persons for employment as seamen and the retirement of seamen from such employment;
  - iii) the promotion of seamen or changes of their categories.
- (b) To maintain registers of seamen in respect of the categories prescribed under sub-clause(i) of clause (a).
- (c) To perform such other duties relating to seamen and merchant ships as are, from time to time, committed to them by or under this Act".\*

First Asian  
Maritime  
Conference

2.15 Since Asian seafarers, except the Japanese, are employed in large numbers on non-Asian ships, the problems concerning their employment have international significance. In recognition of the role played by the Asian seafarers and the need for placing the recruitment organisations in Asian countries on a sound footing, the I.L.O organised the First Asian Maritime Conference in October 1953, at Nuwara Eliya in Ceylon. This conference adopted two resolutions concerning the recruitment of seamen in Asia requesting the Governments of maritime countries to review their systems of recruitment and, where the existing arrangements were found to unsatisfactory, to determine what machinery should be established to eliminate the defects. The Conference also made suggestions as to how the machinery should operate.

\*Merchant Shipping Act, 1958 - Sec. 85.

Seamen's  
Employment  
Offices at  
Bombay and  
Calcutta

2.16 The First Asian Maritime Conference gave added impetus for a more vigorous programme of action for regulating employment of seamen on the part of the Government of India. As bipartite efforts had proved ineffective, the Government adopted the alternative suggested under the provisions of the Placing of Seamen's Convention, further encouraged by the resolutions of the Asian Maritime Conference, and established Seamen's Employment Office at Bombay in March 1954 and at Calcutta in January 1955 as a part of the Government machinery. A Seamen's Employment Scheme was evolved. Seamen's Employment Boards were also set up at these ports as tripartite bodies, consisting of equal number of representatives of shipowners, seafarers and the Government, to render advice to the authorities concerned regarding day to day implementation of the Seamen's Employment Scheme.

2.17 The salient features of the Seamen's Employment Scheme were as under.

- i) compilation of authentic records about the number of seafarers;
- ii) provision of employment to all registered seamen on a rational and rotational basis;
- iii) elimination of all those considered unsuitable for the profession;
- iv) programming of future entrants through the Ratings Training Establishments; and
- v) assessment of the magnitude of social aspects like extent of unemployment, etc.

Introduction  
of trained  
Seamen.

2.18 It was also recognised that any scheme concerning employment of seamen would be successful only if the problem was also tackled simultaneously at the very base so as to regulate and control effectively new admissions into the merchant navy. The need for ensuring high standards of efficiency, specially in view of modern trends in operation of ships, added another note of urgency to the problem. In the past due to lack of organised pre-sea training the attainment of a high standard of efficiency was largely a matter of personal initiative and ambition. But this was considered to be inadequate under the changed circumstances. Keeping this in view, and in pursuance of the recommendations of the Merchant Navy Training Committee, a training scheme for ratings was brought into force in 1950-51 with the commissioning of T.S. Andrew (renamed T.S. Bhadra) and T.S. Lady Fraser (renamed T.S. Mekhala) as afloat ratings training establishments. A shore establishment, 'Nau Lakshi', was later set up at Navalakhi (Gujarat) in 1955.

The present  
situation.

2.19 Through joint efforts on the part the representatives of shipowners, seafarers and the Government a considerable change has been brought about in the old situation. The present position may be summarised briefly as indicated below.

- i) The licensed brokers and fee charging agencies supplying seamen have been completely eliminated.

- ii) Effective restriction has been imposed on the issue of new Continuous Discharge Certificates so as to regulate the number of available seamen.
- iii) Seamen's Employment Offices have been established at the chief recruiting centres of Bombay and Calcutta in order to ensure that the available volume of employment is distributed equitably among the registered seamen on the basis of rotation according to seniority based on the last date of discharge - roster-wise. The scheme also provides for a reasonable degree of freedom of choice to the shipowners and the seamen in providing and seeking employment.
- iv) All further entry into the Deck and Engine-room departments on board ships is made through the ratings trained at the Ratings Training Establishments in order to introduce a minimum standard of quality among ratings.
- v) All seamen, except those employed by the shipping companies on permanent basis, are registered with the Seamen's Employment Offices, which maintain continuous records of service for each seaman.

नमो भगवते वासुदेवाय

CHAPTER - III  
STUDY OF UNEMPLOYMENT

Number of jobs in relation to registered seamen.

3.1 It has been brought out in the previous chapter that surplus availability of seamen has been an endemic feature of seamen's employment in India for a long time. More precise data are available since the establishment of Seamen's Employment Office at Bombay and Calcutta. The following table depicts the position at these two ports since 1956 in this respect.

Date	Bombay		Calcutta	
	No. of jobs.	No. of seamen registered.	No. of jobs.	No. of seamen registered.
1.1.1956	21058	29023	14400	18461
1.1.1957	23225	31478	<u>17086</u>	27251
1.1.1958	<u>23538</u>	33218	16199	<u>27352</u>
1.1.1959	21838	<u>35209</u>	16209	26396
1.1.1960	19780	34938	13692	24096
1.1.1961	20132	34097	11417	22393
1.1.1962	20912	33828	10730	19850
1.1.1963	20479	33283	<b>9317</b>	18970
1.1.1964	20646	32826	9247	18080
1.1.1965	20303	32532	8430	16556
1.1.1966	19329	31819	8374	15204
1.1.1967	18853	30688	7629	15195
1.1.1968	17896	29901	7641	13031
1.1.1969	18308	28840	7670	12705

3.2 It would be noticed from the table above that the highest number of jobs were available at Bombay and Calcutta in 1958 and 1957 respectively, viz. 23,533 at Bombay and 17,086 at Calcutta. Since then the number has come down to 18,308 and 7,670 respectively at the two ports as on January 1, 1969, the decline being particularly steep at Calcutta. Though there have been some minor upward fluctuations over the years, there is a marked general trend towards reduction in the number of jobs available. It may be pointed out, however, that as on 1.1.1969 the position was slightly better as compared to the preceding year, specially at Bombay.

3.3 The number of seamen registered was the highest in 1959 at Bombay and in 1958 at Calcutta, being 35,209 and 27,352 respectively. Since then there has been a persistent decline and the number of registered seamen stood at 28,840 and 12,705 respectively at the two ports on January 1, 1969.

Roster  
Strength.

3.4 For various reasons since the formation of the Seamen's Employment Offices it has been the general practice to maintain rosters at 150% of the number of jobs available and to call up ordinarily two persons for each job notified for recruitment by a shipowner. The demand and supply position on this basis at the ports of Bombay and Calcutta during the last five years has been as under.



As on	BOMBAY				CALCUTTA			
	No.of jobs	No.of men reqd. @ 150%	No.of regd. seamen	Varia- tion	No.of jobs	No.of men reqd. @ 150%	No.of regd. seamen	Varia- tion
1.1.1965	20303	30454	32532	+2078	8430	12645	16556	+2911*
1.1.1966	19329	28993	31819	+2326	8314	12471	15204	+2733*
1.1.1967	18353	28280	30688	+2408	7629	11444	15195	+3751*
1.1.1968	17896	26844	29901	+3057	7641	11461	13031	+1570
1.1.1969	18303	27462	28840	+1378	7670	11505	12705	+1200

\* including about 2000 Pakistani seamen since treated as de-registered.

3.5 The table above reveals that despite a steady decline in the number of jobs available during the preceding five years, except for a slight reversal of the trend in 1969, the number of surplus seamen over and above the 50% margin on actual number of jobs, has declined appreciably in 1969 to 1378 at Bombay and 1200 at Calcutta respectively. The peak surplus at Bombay (3057) was in 1968 and at Calcutta (3751) in 1967. This fact is a direct result of the appreciable reduction in the number of registered seamen.

Jobs on  
Indian and  
foreign  
ships.

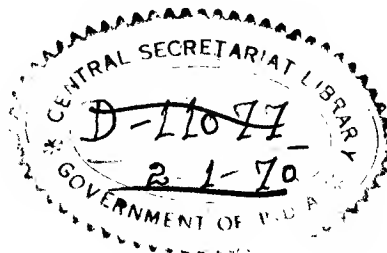
3.6 During the last 100 years or so more Indian seamen have been serving on foreign ships as compared to Indian vessels on account of the sharp set-back received by Indian Shipping industry after the advent of British supremacy. It has been estimated that at the time of independence in 1947 about 90% of Indian seamen were engaged by foreign ships. Since then due to steady growth of Indian shipping, on the one hand, and reduced employment opportunities on foreign ships, on the other, the percentage of seamen employed by Indian flag vessels has gone up appreciably. The percentage stood at 33% of the registered seamen at Bombay on 1.1.1969 and 25% at Calcutta. The following table which shows the break up of jobs as between Indian, British and other foreign ships also indicates that year by year, both in absolute terms and percentagewise, an increasing number of seamen have found jobs on Indian ships.

	As on	Indian ships	British ships	Other foreign ships	Total foreign ships	TOTAL
Bombay	1.1.1966	5231 (27%)	11629 (60%)	2469 (13%)	14098 (73%)	19329
	1.1.1967	5851 (31%)	10460 (55.5%)	2542 (13.5%)	13002 (69%)	18853
	1.1.1968	5726 (32%)	9378 (52.4%)	2792 (15.6%)	12170 (68%)	17396
	1.1.1969	6064 (33%)	8915 (48.7%)	3329 (18.3%)	12244 (67%)	18303
Calcutta	1.1.1966	1494 (18%)	6880 (82%)	----	6880 (82%)	8374
	1.1.1967	1563 (20.5%)	6066 (79.5%)	----	6066 (79.5%)	7629
	1.1.1968	1683 (22%)	5958 (78%)	----	5958 (78%)	7641
	1.1.1969	1913 (25%)	5752 (75%)	----	5752 (75%)	7670

3.7 Analysis of the data tabulated above also reveals that number of seamen employed by foreign ships has been going down year by year. Their number has come down to 12244 and 5752 at Bombay and Calcutta in 1969 as compared to 14098 and 6880 in 1966. Further, even though due to traditional reasons British ships continue to be the largest employers of Indian seamen, the number being 14,667 on 1.1.1969 (or 56.4% of total jobs), the number of seamen employed by British ships has been going down. For example, the number was 18,509 in 1966 (67% of the total jobs). It has been estimated that British ships employed about 30,000 Indian seamen in 1957. On the other hand, there has been a steady though small improvement, in the number of seamen employed by foreign ships other than British - 2,469 in 1966 and 3,329 in 1969. Non-British foreign ships select their crews from Bombay and not from Calcutta and their share in the total number of jobs available at Bombay has gone up from 13% in 1966 to 18.2% in 1969.

3.8 Annexure III-A and III-B tabulate the number of ships of Indian and foreign shipping companies which have recruited Indian crews between 1963 and 1968

Number of  
ships taking  
Indian crew



for Bombay and 1960 to 1968 for Calcutta. The following table summarises the position for the years 1963 to 1968 and shows that while number of Indian ships engaging crews have shown a steady increase there is a corresponding decline in foreign ships engaging Indian crews. Further, while at Bombay the increase in Indian ships more or less counterbalances the decrease in crews employed by foreign ships, this has not been possible at Calcutta with the result that the total number of ships employing Indian crew has also declined progressively at Calcutta.



As on	BOMBAY			CALCUTTA		
	Indian Shipping Companies	Foreign Shipping Companies	Total	Indian Shipping Companies	Foreign Shipping Companies	Total
1.1.1963	102	302	404	29	161	190
1.1.1964	120	292	412	32	160	192
1.1.1965	107	312	419	29	156	184
1.1.1966	122	273	395	30	147	177
1.1.1967	138	266	404	33	139	172
1.1.1968	135	263	403	36	134	170

3.9 A comparative analysis of the total number of ships employing Indian crews and the total number of jobs is interesting. As between 1.1.1963(594) and 1.1.1968(573) the total number of ships employing Indian crews has gone down by only 3.5 per cent. On the contrary, the total number of jobs available has decreased by 14.3 per cent from 29796 on 1.1.1963 to 25537 on 1.1.1968. The number of jobs available at Bombay has come down from 20479 to 18303 by 10.6% over the same period.

while the number of ships taking Indian crews has remained more or less the same. A change in the manning policy of foreign ships largely accounts for this shift. This aspect has been further discussed in paras 3.13 and 3.14. The following paragraphs are devoted to a discussion of factors responsible for decline in the number of Indian seamen employed by foreign flag vessels.

Competition  
from air  
transport.

3.10 Passenger ships which have traditionally employed larger crews, have been going out of business due to competition from air transport; the coming of mammoth 'Concordes' and large supersonic aircrafts is likely to further aggravate the position.

International  
competition  
in labour  
market.

3.11 At the same time, keen competition is growing from new markets for seamen like Hongkong, Spain, Africa, Pakistan, Malta, Malaysia and Singapore. These markets were of little consequence in the old days when, for instance in 1935, more Indian nationals were employed as seamen as compared to any other country except Great Britain, USA and Japan. The total number of Indian seamen working on ships was estimated to be about \*59,000 in 1935.

International  
competition  
in shipping.

3.12 International competition in shipping is becoming increasingly stiff with the entry of new nations in this field. The fastest rate of expansion of national shipping has been recorded by the Socialist countries. Both new developing countries and Socialist countries generally employ their own nationals as

\*Maritime Labour in India by Dinkar Desai (1949)  
pp.18-19.

seamen. This new development further tends to restrict relatively the employment opportunities for Indian seamen.

Reduction  
in Crew size.

3.13 Mounting costs and stiff competition have prompted foreign shipowners to serious efforts towards economy in operation. One consequence has been a significant reduction in the manning scale of foreign ships in recent years. Annexures IV, V, VI, VII and VIII-A to VIII-E furnish detailed information regarding the change in the manning policy of important foreign shipping companies in respect of different types of ships. While the need to economise provided the impetus to reduce the size of the crew of ships, automation has made this possible. This trend is likely to continue in future.

General  
purpose  
manning.

3.14 Several foreign shipping companies employing Indian seamen have been conducting experiments since late 1967 under which deck and engine room ratings perform duties in both departments instead of traditional specialisation in one department only. A couple of shipping companies are also trying to amalgamate the saloon department with the above in order to have truly integrated multipurpose seamen. Details in this respect are furnished in Annexures VIII-A to VIII-E.

Growing size  
of ships.

3.15 The world tonnage is expanding as never before. During the last decade the world tonnage has increased by 64.3 per cent from 118.03 million GRT in 1958

to 194.15 million GRT in 1968. Normally, such rapid expansion of shipping industry would have led to a vast increase in employment opportunities for seamen. But this has not happened because a substantial proportion of the larger world tonnage has been provided by the increased size of mammoth tankers and giant bulk carriers rather than through increase in the number of ships. This trend continues unabated. Only about a decade back the then super tankers were of about 30,000 deadweight tons. Now the largest tankers are of over 300,000 deadweight tons. Tankers of 500,000 deadweight tons are also on the drawing boards.

Container ships.

3.16 In the field of cargo liners the container ship has brought about a revolution. Container ships are now firmly established on major trade routes of the world. They are fast and have a larger cargo carrying capacity. According to different estimates, depending upon its size, each container vessel can replace 3 to 7 conventional cargo liners. This development would also reduce crew requirements in the future.

Impact of new technology.

3.17 With the advance of science and technology merchant navy career is no longer considered as hazardous or taxing as it used to be a decade or two ago. Hence, the nationals of the advanced maritime countries are offering themselves in larger number for employment on national ships and the national unions of merchant navy personnel are pressing for preference

for the employment of their own nationals.

Diversion  
of foreign  
ships to  
other areas.

3.18 As a result of remarkable growth of Indian shipping during the last two years, specially because of increasing Indian participation in liner conferences, the proportion of foreign ships, particularly cargo liners, calling at Indian ports has declined. If foreign ships do not call regularly at Indian ports and yet employ Indian crew they have to incur considerable expenditure on air transport of Indian crews apart from other inconveniences. Hence, there is a tendency for such foreign ships to obtain their crew requirements from other countries rather than from India.

Zonal restriction on  
employment  
of Indian  
seamen.

3.19 The present system of restricting the employment of Indian seamen within certain latitudes and longitudes during winter months is also, to some extent, responsible for non-employment of Indian seamen by certain shipping companies, particularly those having big oil tankers. Many ships visit Scandinavian countries. If adequate precautions are taken for protection against very cold weather with the co-operation of shipowners and Indian seamen are allowed to be engaged on such ships, it could open up an opportunity for more jobs for Indian seamen apart from proving their merit under difficult climate conditions.

Standard of  
training.

3.20 Working conditions on modern foreign vessels are different and comparatively more sophisticated. Indian seamen sometimes find it difficult to adapt themselves



to the new job requirements. Lack of capacity to converse in English and inadequate educational background also act as handicaps in this respect. Because of this certain foreign shipowners have not been very enthusiastic about employing Indian seamen. This handicap can be removed only through adequate and rigorous pre-sea training.

Need for discipline.

3.21 Indian seamen have won recognition from British shipowners over a century for their devotion to duty and efficiency. Taking into consideration our surplus manpower and keen competition from other sources it becomes necessary to emphasise that Indian seamen not only maintain their traditional discipline and devotion to duty but also demonstrate superior standards of discipline as it will help persuade more foreign shipowners to look to India as a reliable source of recruitment. It needs to be recognised that even minor cases of indiscipline have repercussions and may even adversely affect employment opportunities. Besides, discipline also contributes to safety on board ships. Equally important it is for the leaders of seamen's unions to continue to deal with the seamen's problems arising from time to time in such a manner as would create the right impact and promote harmonious relationship with shipowners. A high sense of responsibility and fair-play will go a long way in improving job opportunities.

Employment of  
Indian seamen  
on Non-British  
European flag  
vessels.

3.22 In the past, Indian seamen were employed on a regular measure by Scandinavian and German shipowners. Subsequently, however, these shipowners have stopped engaging seafarers from India. Occasional enquiries are received from certain countries of Europe e.g. Norway, Sweden, Germany, Greece regarding the prospects of employing Indian seamen. The Shipping Companies of these countries do not have accredited agents or representatives in India to deal with various matters concerning employment of Indian seamen and to undertake obligations entailed in this respect under Indian Merchant Shipping Act. In view of the large and growing size of the merchant fleets of these countries they could provide extensive avenues for the employment of Indian seamen on their vessels and these ought to be explored with the help of Indian Missions abroad.

Waiting  
period.

3.23 The table under para 3.1, earlier in this chapter, shows yearwise comparative position regarding the number of jobs available and the number of seamen registered at Bombay and Calcutta. It may be seen from the table that as between 1956 and 1969 the number of available jobs declined by 9,480 i.e. 2,750 at Bombay and 6,730 at Calcutta. As against this loss, the number of seamen registered at the two ports declined by only 5935, 133 at Bombay and 5756 at Calcutta, over the same period. Thus, the number of seamen registered at the two ports increased from 134% of the number of jobs available in 1956 to 160%

in 1969. The study made by the Committee reveals that in certain categories and rosters, seamen had been waiting for 12 months, or even longer, though the general waiting period ranged between 3 to 9 months, from the date of last discharge. The position at Calcutta, however, appears to be worse than at Bombay in certain categories. It should also be noted that the statistics about waiting period are also vitiated to the extent seamen do not respond whenever they are called for employment.

Unsatisfactory  
response to  
call.

3.24 It has been mentioned earlier that while there has been a persistent surplus of seamen in relation to available jobs, paradoxically enough shipowners have faced considerable difficulty on account of inadequate response from the seamen against calls to muster. Consequently, more often than not the full complement of crew has to be procured by holding one or more supplementary musters.

3.25 The Committee has investigated this problem in detail and in this task it was particularly assisted by special sub-committees consisting of representatives of shipowners and seamen which interrogated a number of seamen at the time of their engagement and discharge in the Seamen's Employment Offices at Bombay and Calcutta.

3.26 The unsatisfactory response to calls largely appears to be the legacy of the age-old system of recruitment of seamen, under which employment of

seamen was understood to be of an irregular and intermittent character and no time limit was laid down between one spell of engagement and the other. Till recently the practice both at Bombay and Calcutta was to issue 3 calls to each seamen when he was on turn for employment and as long as he reported to the Seamen's Employment Office, within 30 days of the last call, which was sent by registered post, his registration could still remain alive though his seniority would go down. Hence, a seaman, if he so desired, could remain away for a long spell of one year or even more. Besides, as a rule, the number of seamen called was twice the number of jobs available thus making it uncertain whether a reporting seaman would secure a job.

One call  
system.

3.27 At Calcutta, 'One call system' has been enforced since October 1968. The essential feature of this system is that ordinarily only one call is sent to a seaman on turn for employment and the number of seamen called is equal to the number of jobs available. A similar call system is expected to be put into effect at the port of Bombay from the middle of 1969. The details of this system have been discussed subsequently. The one call system is expected

to improve the position . . . by imparting greater reality to the recruitment system.

3.28 The following table provides an analysis of seamen coming up for next employment at the Seamen's Employment Office, Calcutta, as in March 1957, two years after the Seamen's Employment Office was established there as compared to the position prevailing before the establishment of the Office.

@@ Waiting on shore (period in months)	Percentage of total population of seamen seeking re-employment.	
	Before setting up of S.E.O.	After setting up of S.E.O.
Upto - 3	3.6	83.6
" - 6	7.1	12.8
" -12	15.0	3.6
" -18	23.3	(@@ Article "Merchant Navy Ratings at Cal- cutta Port Indian Labour Gazette Vol. XIV No.9, March 1957, by Dr.A.K.Mallik, Dy.Port Health Officer, Calcutta and Shri K.C.Ray, Director, Seamen's Employment Office, Calcutta.)
" -24	13.9	
" -30	8.0	
" -36	8.7	
" -48	11.6	
" -60	4.3	
" -60 +	4.5	

It is observed from the above data that after the establishment of Seamen's Employment Office, 83.6% of the seamen responded within 3 months of the last date of discharge, 12.8% within 6 months and the remaining 3.6% within 12 months. While during the period before March, 1955 seamen could linger on ashore for several years.

3.29 The experience at Calcutta for about 6 months with the one call system shows that the percentage of response to calls has improved from about 58.5% to 65%.

Result of  
sample survey

3.30 About 200 seamen were interviewed individually at the Seamen's Employment Offices at Bombay and Calcutta. The sample survey provides some useful information. At both places, the general consensus among the seamen questioned was that they required only 2 to 3 months' rest between the last date of discharge and the next engagement. At Bombay, about 25% of the seamen who were examined had alternative employment like painting, agriculture, etc. when "off articles". At Calcutta, hardly 10% of the seamen interviewed had alternative occupation to fall back upon during the period of unemployment. The majority of seamen while "off articles" had to live on savings acquired by them during engagement on board ships or were forced to incur debts. The enquiry also brought out that most of the seamen received the call letters regularly at the correct address recorded in the Seamen's Employment Offices.

CHAPTER - IV

FUTURE EMPLOYMENT FORECASTS

Salient  
factors.

4.1 In the preceding chapter the Committee has already discussed the new factors which have a direct bearing on the employment potential of Indian seamen. These include recent technological changes, new manning policies of foreign shipping lines and the comparative decline of the importance of foreign ships in India's international trade, specially in the liner sector. So many variables, coupled with the fact that shipping industry all over the world is in a state of flux, makes any exercise concerning forecast of the number of Indian seamen required rather hazardous.

4.2 One thing, however, appears, to be certain. No significant increase could be expected in the number of jobs available for Indian seamen on British and other foreign vessels, specially the former. In this context it is relevant that the strength of man power in the British merchant navy, which is the largest employer of Indian seamen, has come down to 99,703 in 1962 as against 1,52,470 in 1957.

4.3 Despite the limitations inherent in any forecast which may be attempted in such a fluid situation, the Committee felt that it was essential for its work to arrive at certain reasonably accurate forecasts in respect of the following issues.

- (a) Number of jobs likely to be available on non-Indian and Indian ships during the next 6 years or so;
- (b) Level of employment for Indian seamen expected to be available during the same period; and
- (c) Annual wastage among seamen owing to superannuation, invalidation, deaths and other causes.

Jobs on  
non-Indian  
ships.

4.4 The Committee considers that further reduction in the level of employment of Indian seamen in foreign ships is inevitable. The extent of reduction would be determined by various factors like the experience gained by foreign shipping companies in employing multi-purpose integrated Indian crews, whether container ships come to India and what dent they make in the employment of conventional cargo liners, the extent to which Indian crews are able to find jobs with non-British foreign ships, the results achieved in improving the technical competence of the Indian seamen. However, on the basis of views expressed by representatives of shipowners and seafarers the Committee feels that it would be reasonable to conclude that during the course of six years the total recruitment of seamen employed in foreign ships would go down by about 10%, as compared to 1969 level. However, this reduction would not be applicable in respect of general purpose rosters which have been introduced recently with reduced manning scales. In this connection it would be relevant to give a comparative



picture of reduction in employment of crew as a result of steps like automation and introduction of general purpose crews on some selected foreign ships of different types - the details are furnished in Annexures IV to VIII E as mentioned in paragraph 3.14. The following table illustrate the position.

Name of Ship.	Old Con- ventional Crew Strength.	New manning strength	% redu- ction (3 over 2)
1.	2	3	4
<u>A. Cargo Liners</u>			
Naess Charion	52	37	28.9
Cardiff City	47	41	12.8
<u>B. Tankers</u>			
Border Lass	43	44	8.3
Naes Champion	56	40	28.6
Mobil Comet	51	46	9.8
Edward Stevenson	61	47	22.9
Scottish Ptarmigan	51	45	11.8
Mobil Libya (G)	35	29	17.1
Mobil Energy (G)	44	33	25.0
Royal Arrow (G)	41	31	24.4
Mobil Brilliant(G)	46	32	30.4
Mobil Wenatchi (G)	37	30	19.0
<u>C. Bulk carriers</u>			
Eastern City	45	41	8.9
Overseas Courier	45	43	4.4
Manseer	57	47	17.5
Woodavra	54	42	22.2
Ayrshire	70	61	12.8
City of Wellington	57	52	8.8

(G) = Due to general purpose crew.

Employment on Indian ships. 4.5 As for employment on Indian vessels, two forces

would tend to operate in opposite directions. Rapid expansion of Indian shipping, which is expected during the Fourth Five Year Plan, would create more job opportunities. On the contrary, reduction in conventional manning scale and possibility of employment of integrated crews on Indian ships would react in an opposite manner. According to information available with the Committee, after providing for replacement of some ships during the Fourth Five Year Plan, a net addition of about 60 vessels is anticipated during the Fourth Plan. On this basis, 2600 additional jobs may be available during the Fourth Plan period.

4.6 At the same time, the Committee concludes that in order to remain internationally competitive Indian shipping industry would have to take a good look at its manning policy in the immediate future. Some Indian shipping lines are already considering seriously the question of experimenting with integrated crews on their ships. In order to provide for this contingency a provision should be made for a reduction of 10% in the requirement of seamen for manning Indian flag vessels over the current level during the next six years.

Transit and other crews.

4.7 The Committee also finds that at any one time a number of transit crews are employed who are either in transit between foreign and Indian ports or

between outports in India and the homeports of the crew. Sometimes crews are also required to fill up temporary shortages on board the ship, and a very small number of shore crews are also employed by a few ships when in ports. It would appear to be desirable to make a provision for 500 seamen for such miscellaneous assignments.

Projection for  
next six years.

4.8 As on March 1, 1969, the number of jobs available for Indian seamen was 26,060. Their employment is graphically depicted below:

BOMBAY		CALCUTTA	
On Indian ships	On foreign ships	On Indian ships	On foreign ships
3,993	11,722	1,836	5,834
+1,661*			
5,654	11,722		

$$\begin{array}{r} 17,376 \\ + 1,014 \text{ **} \\ \hline 18,390 \\ \hline \end{array}$$

\* General Roster

\*\* Jobs on G.P. Roster.

4.9 It is estimated that the net jobs available for Indian seamen in 1974 will be about 26,600, according to the following calculations.

(a) No. of jobs on 1.3.1969	26,060
(b) Plus additional jobs due to expansion of Indian shipping.	2,600
(c) Plus transit and other additional crews	500

(d) Minus 10% of jobs over 1969 level in Indian and foreign ships(excluding G.P.Rosters viz. 1,014)	2,504
(e) Net jobs in 1974	26,656

Annual  
Wastage

4.10 Annexures IX-A and IX-B tabulate annual wastage of seamen at Bombay and Calcutta respectively from 1964 to 1967, according to category(deck, engine, and saloon) and cause (overage, death, medical unfitness, disciplinary action, non-response to calls, and other cases). The annual wastage averaged 1,789 at Bombay and 583 at Calcutta during this period. Under each head the wastage was generally significantly more at Bombay except on account of medical unfitness which appears as a more important cause of wastage at Calcutta as compared to Bombay.

4.11 The above figures also include Saloon Ratings, Bhandaries and certain other categories, for which trainees are not appointed. Annexures X-A and X-B provide similar data as indicated above in respect of all categories excluding Saloon Ratings, Bhandaries, etc. On this basis average annual wastage between 1964 and 1967 amounted to 1,084 at Bombay and 267 at Calcutta. Annexures X-A and X-B also show larger wastage under each causewise head at Bombay as compared to Calcutta, except on account of medical unfitness.

4.12 Annual wastage at Calcutta has come down from 4.7% in 1966 to 3.6% in 1968. Taking into consideration that a large number of seamen registered at Calcutta are in younger age group, an annual wastage of 3%

per year may be taken as an average for the next six years till the beginning of 1974. However, the Committee recommends that the position regarding wastage should be reviewed annually.

4.13 The average wastage at Bombay in the past was 6% of the number of registered seamen in 1969.

During the next year or two the percentage may increase due to enforcement of the 'one call system' and imposition of more rigorous medical standard. But the position may stabilise at about 4% per annum after a few years. Hence, the Committee recommends that for Bombay annual wastage may be reckoned at 5% of the 1969 registrations. This presumption should also be reviewed annually.

4.14 The number of seamen registered on the 1st January 1969, stood at 28,340 and 12,705 at Bombay and Calcutta respectively. Wastage on the basis of 5% and 3% respectively of these figures would show that 1,442 and 381 seamen would go out of profession every year at Bombay and Calcutta. On the basis of an annual wastage of 1,823 seamen, 9,115 seamen would be wasted out in 5 years i.e. by 1973-74.

The number of seamen registered at Bombay and Calcutta would thus come down to 32,430 in 5 years, if no additions were made to make good the wastage as against about 26,600 jobs.

CHAPTER - V

REMEDIAL MEASURES

Broad Lines  
of action.

5.1 After a study of various <sup>aspects</sup> of un-employment and under-employment among Indian seamen, and taking into account the future trends, the Committee has come to the conclusion that the following steps should be taken on an immediate basis to improve the situation as far as possible. Subsequent paragraphs of this chapter discuss the Committee's suggestions regarding translation of these recommendations into action.

- a) An effective seamen force should be established, whose sole occupation is seafaring.
- b) Regularity of employment should be brought about to inspire confidence among shipowners and seamen.
- c) The standard of pre-sea training should be improved to enhance the technical capability of Indian seamen.
- d) Entry of fresh trainees to the profession should be restricted further.

Strength of  
Rosters.

5.2 Before the establishment of Seamen's Employment Offices there were no precise principles to decide the employment of seamen. There was no rigidity about time interval between two successive engagements. This position is reflected even today in the

currently prescribed strength of Rosters at 150% of the number of jobs actually available. Even then due to poor response to calls full recruitment of crew has to depend upon frequent ad-hoc musters. Till very recently each seamen was entitled to three calls. The Committee feels that a large surplus of maritime labour and rather loosely framed employment procedure (which has evolved due to certain historical reasons) tend to cultivate a situation and attitude where under-employment among seamen and poor response to calls for jobs subsist side by side. In the opinion of the Committee, now that Seamen's Employment Offices have been functioning for about 15 years and much more accurate statistical data are available as compared to the past, when the position was reviewed by Seamen's Recruitment Committee in 1922 and Royal Commission on Labour in India in 1931, time is ripe for a more scientific approach to this long outstanding problem. An endeavour should be made to attain a proper working balance between the number of registered seamen and the number of available jobs. This, along with other steps suggested by the Committee, could lead to the creation of a cadre of trained and

dedicated seamen whose only vocation would be seafaring. Such a cadre alone can provide the required stability and quality of personnel.

Roster strength-

Periodic ~~review~~ 5.3  
review.

The Committee strongly recommends a review of the present system of employment in the interest of both employers and employees. Certainty must replace uncertainty and apprehension on either side. The shipowner must get the seamen when he wants them and the seaman should also know much more precisely as to when he should be expected to be ready for the next voyage. As on January 1, 1969, the overall strength of the rosters was 160% of the number of jobs. The Committee is of the view that as the response from seamen to calls for jobs improves, it would be desirable to reduce the strength of the rosters gradually over a period of years taking care all the time that adequate crews are available for engagement to meet the requirements of shipowners while, at the same time, reducing excessively long waiting periods between two successive spells of employment. The Committee gave considerable thought to this problem and in formulating its views it was guided by a desire to ensure that legitimate



interests of both shipowners and seamen must be safeguarded so as to ensure economic progress of the shipping industry and enlargement of employment opportunities for the seamen. After careful deliberations, the Committee considers that it would be desirable to work ultimately for a target where every seaman desirous of obtaining a job is assured of employment after about 3 months from the date of his discharge from previous employment, which, on an average, may last about 9 months. At the same time, the Committee considers that undue haste in the reduction of rosters would be neither in the interest of seamen nor of shipowners, as it may create difficulties in finding adequate number of seamen, as and when required, which, in turn, would have adverse impact on the employment opportunities for Indian seamen as foreign shipowners may tend to look elsewhere for crews. Hence, the Committee recommends that this matter, which is of great importance, should be kept under careful and constant review.

Improvement  
of training.

5.4 Replies received to the questionnaire issued by the Committee from employers of Indian seamen stressed the need for reviewing their training syllabus so as to enable the seamen to perform their duties on board with greater confidence, efficiency and responsibility in the light of increasing sophistication of ships and other functional changes in ship operation. The Committee is fully convinced of the need to improve the technical capability and efficiency of Indian seamen so that they acquire greater professional skill and knowledge and are able to compete with seamen available for employment in other countries. This aspect is also of special importance as seamen travel round the world and can be helpful in projecting a proper image of India abroad.

Syllabus  
revision  
Sub-Committee.

5.5. The report of the Training Sub-Committee which examined the question of training of ratings in depth, and which was unanimously adopted by the Committee, is at Annexures XI to XV. Substantial changes have been suggested in the curricula of pre-sea training of seamen which would necessitate extension of training period from the present level of four months to six months. Once the revised training syllabus

is put into effect and the matter is given adequate publicity abroad through the Indian Missions, the demand for Indian seamen may show some improvement among non-Indian employers.

Selection of trainees.

5.6 The Committee also feels that it is necessary to give more attention to initial selection of trainee seamen. In this connection the Committee recommends the following.

- a) Minimum academic qualification of candidates should be 8th standard passed.
- b) Preference should be given to candidates possessing elementary knowledge of English.
- c) Candidates, who have received training in one ~~or~~ more of the following should also be accorded preference:
  - i) National Cadet Corps /Sea Cadet Corps/etc.
  - ii) National Volunteer Force
  - iii) Home Guards
  - iv) Civil Defence
  - v) Scouting, etc.
  - vi) Passed trade test from an Industrial Training Institute, etc.
- d) A written test of elementary nature should also be introduced to evaluate the power of comprehension and expression of candidates.
- e) Interview procedure should be improved.

Strengthening of medical standards.

5.7 The Committee feels that keeping in view the growing responsibility of seamen and sophistication of modern ships, more stringent medical standard should be laid down and enforced more rigidly so that Indian Seamen do not suffer in comparison with their counterparts from other countries. It was understood that the question of revision of medical standards for seamen was already engaging the attention of the Government.

Training in Personnel Management.

5.8 The Committee feels that special courses of training on personnel management and human relations, on the lines of similar courses in the U.K., should be arranged for Indian Officers and seamen in their respective training institutions. In the regular training programme emphasis should also be laid on personnel management, human relations and discipline on board ships.

Special Training Courses.

5.9 The committee suggests institution of the following special courses at the ratings training establishments as per syllabi at Annexures XII to XV.

- i) Efficient Lifeboatman Course ... One week
- ii) Efficient Deck-hand Course ... Two weeks
- iii) Efficient Engine Room Rating Course ... Two weeks
- iv) General Purpose Manning Course. Three weeks.

Inservice  
training

5.10 The Committee considers that pre-service training, though essential, must be supplemented by inservice training, which is equally important. It recommends that shipowners may be advised to lay down proper schedules for inservice training for seamen so as to improve their efficiency and performance. This would benefit both the seamen and their employers. The Committee does not envisage any examination for inservice training.

Fresh recruit-  
ment of trainees.

5.11 The three Ratings Training Establishments have a maximum capacity of training 140 ratings per month, viz. T. S. Badra - 50, T. S. Mekhala - 40 and T. S. Nau-Lakshi - 50. The out-turn of the three institutions was reduced to 98 per month from 1st October 1965 and to about 73 per month average from the middle of 1967. At present the surplus ratings number about 2,500 seamen in addition to 1,000 trainees. Despite this heavy accumulation the Committee does not recommend a total suspension of fresh recruitment in the interest of continuity and regular availability of new blood. The Committee recommends that as a balanced approach 50% of the annual wastage of ratings (1823) may be made good by fresh recruitment and the remaining 50% may be offset against the surplus available.

of ratings. This arrangement should be continued and periodically reviewed till the roster strength on the pattern envisaged in para 5.3 is attained

5.12 To fulfil this recruitment programme, the Committee recommends annual recruitment at a level of about 600 deck and engineroom trainees per year in addition to 300 recruits for the saloon side including Bhandaries and other categories. The Committee also recommends that the position may be reviewed from year to year.

Indirect  
benefits of  
reducing the  
size of  
rosters.

5.13 Reduction of the roster strength to a practicable level would also benefit seamen in other ways. By putting in longer sea time their gratuity and provident fund benefits would improve. At present it takes a seaman about 30 years of service, or even more, to earn his full gratuity and even the provident fund benefit is less than half of what it would be if a seaman had his full articulated service of about 30 years after entering into the profession at the age of about 20 years.

Allocation of  
trainees  
between Bombay  
and Calcutta.

5.14 After considering the past absorption pattern of ratings the Committee recommends that the out-turn of the fresh trainees at the rate of 50 per month or 600 per annum for the

Deck and Engine Room Deptt., should be apportioned between Bombay and Calcutta in the ratio of 35 : 15. The Committee would even suggest that some of the trainees who cannot be absorbed at Calcutta may be diverted to Bombay for placing on ships to avoid hardship to them.

Absorption of trainees at Calcutta.

5.15 At Calcutta the number of trainees has increased to about 600, as on the 1st January, 1969, and there has practically been no absorption of trainees since June 1968. While about 200 trainees are expected to be absorbed through special efforts in the next 12 months or so, there appears to be little possibility of the entire backlog of trainees being cleared in a reasonable time. The Committee suggests the following measures to bring relief to the situation.

- i) The allotment of trainees to Calcutta, even at the rate of 15 per month, as mentioned earlier, should be suspended for a period of 12 months to begin with, and the position reviewed thereafter.
- ii) As many trainees as possible should be absorbed in the Deck department, including the Engine Room trainees whose absorption in that department is likely to be extremely difficult.
- iii) Trainees who are related to Saloon ratings, or who come from areas from where Saloon ratings are traditionally recruited, may be absorbed in the Saloon department, wherever feasible.

- iv) In the event of non-response to calls by seamen in the lowest categories in the Deck and Engine-room Departments, preference should be given to the engagement of trainees at least to the extent of one in each department. In view of the acute problem at Calcutta and in accordance with the principles of rotational employment, the Committee feels that the hardship faced by the trainees should be shared by all the seamen at Calcutta.
- v) Trainees should be asked whether they are willing to be transferred to Bombay as their home port, and arrangements made by the Directors of the Seamen's Employment Offices, Calcutta and Bombay, in consultation with the representatives of seafarers and shipowners for the absorption of as many trainees as possible at the port of Bombay.

Re-orientation of Ratings Training Establishments. 5.16 The Committee has recommended a substantial curtailment in the intake of fresh trainees.

This along with the revised training schedule suggested by the Committee calls for a review, in its opinion, of the Ratings Training Establishments by the Government of India. However, the Committee would strongly recommend that there should be two fully equipped Ratings Training Establishments, one each on the east and west coast of India and as near to the ports of recruitment as possible.

Enforcement of 'one call system'

5.17 The Committee notes with satisfaction that 'One call system' has been already enforced at Calcutta from 1st October 1968, and that similar procedure is expected to be



put into effect at Bombay from about the middle of 1969. Details of the 'One call' procedure in vogue at Calcutta and that proposed to be introduced at Bombay are contained in Annexures <sup>XVIA + B.</sup> From the information available to the Committee, it is evident that given a fair trial the 'one call system' is likely to have a salutary effect on the regularisation and stabilisation of employment of seamen. The Committee attaches great importance to the implementation of this scheme.

Absorption in Home Trade sector.

5.18 The Home Trade sector consists of 815 and 118 jobs respectively at Bombay and Calcutta as on 1.1.1969 for which 1,329 and 207 seamen are registered with the Seamen's Employment Offices at Bombay and Calcutta. While there is a provision for registration of Seamen for Home Trade sector, there is no established procedure for their recruitment. The vacancies arising in the lowest categories on Home Trade ships are understood to be filled on ad-hoc basis. There appears to be no reason why trained seamen should not be recruited for this sector also. The Committee recommends that future vacancies in Home Trade sector

should be filled from among the rating trainees or foreign going seamen and they should be allowed, under certain conditions, to come back to the foreign going sector.

Age of  
retirement

5.19 The Committee strongly recommends that no seaman above the age of 60 should be retained in the profession and for those ratings who have joined after June 1, 1964 the retirement age of 55 should be strictly enforced. The Committee also recommends for the consideration of shipowners and <sup>organisations of</sup> seafarers that seamen falling in the age group of 50 to 60 years should be allowed to retire on a voluntary basis on payment of retirement benefits in the shape of Provident Fund and Gratuity without insisting on 15 years effective service for the payment of Gratuity and without invoking the restriction in respect of length of service as laid down under the Provident Fund Scheme. In the opinion of the Committee, retirement of a sizeable number of seamen above the age of 50 would provide substantial opportunities for the balancing of the rosters leading to increasing confidence between the employers and the employees.

CHAPTER - VI

MISCELLANEOUS MATTERS.

Manning  
Scale

6.1 The Committee also considered the question of manning scale on foreign-going ships in the light of recommendation No.28 made by the Committee on Public Undertakings in its report on the Shipping Corporation of India Ltd., which is reproduced in para 4 of Chapter I. In the opinion of the Committee difference in the manning scale applicable in India, U.K. and other countries has a historical background and the question is linked with two other factors, viz. wages and hours of work. The scale of manning with Asian seamen cannot be brought on par with the scale of manning with non-Asian seamen without due regard to other attendant considerations. The Government of U.K. has not ratified so far the I.L.O. convention pertaining to wages, hours of work and manning and a majority of Indian seamen are employed on British flag vessels. If the scale of manning of Indian seamen is reduced on the basis of the manning scales obtaining for British seamen without adequate regard to the inter-linked factors of wages and hours of

work, it would aggravate unemployment without adequate compensating advantages to the seamen. The questions pertaining to wages and hours of work are being constantly reviewed at the bipartite level of the National Maritime Board (India) consisting of equal representation by shipowners and seafarers. The questions relating to manning are also considered from time to time by representative of the shipping companies concerned and the seafarers unions. The tendency is to bridge the gap in manning, hours of work and wages between the Asian and non-Asian seamen on a gradual basis. But the achievement of uniformity in this field is likely to take many years.

Nhava  
Institute  
for seamen.

6.2 The request of the Nautical and Technical Institute and Seamen's Orphanage, Nhava Island, Bombay, that it should be allowed to increase the number of trainees from 30 to 50 per annum, was also considered by the Committee. The Committee notes with appreciation the work being done by the Nhava Institute. But in view of the surplus manpower available and the proposed curtailment of overall training intake of new ratings the Committee cannot recommend any increase in the intake of the Nhava

Institute at the present moment. A view was also expressed that the Nhava Institute could, in course of time and if and when necessary, provide premises suitable for the establishment of a full-fledged Ratings Training Establishment, where facilities for initial training and re-training could be made available under Government auspices.

Permanent  
Employment  
for seamen

6.3 The report of the Sub-Committee of the National Shipping Board appointed to go into the question of permanent employment of Indian seamen was also referred to this Committee. The Sub-Committee had recommended that it was not practicable to provide permanent employment to seamen at the present stage and what was immediately necessary was to consider ways and means for bringing about a balance between the demand and supply position of Indian seamen and to study the effects of technological advancements which were in the offing, on the prospects of employment. The consensus of opinion in the National Shipping Board is reported to be that it would not be appropriate at this juncture to press the question of permanency of seamen, when the question of large scale unemployment was yet to be resolved satisfactorily. The Committee

also feels that the question of permanency of seamen cannot be considered at this stage.

National  
Conference  
on Shipping,  
Shipbuilding  
and Ports.

6.4 The Committee took note of the following recommendations pertaining to seafarers made by the Committee on shipping of the National Conference on Shipping, Shipbuilding and Ports held at New Delhi from 16th to 18th December 1967.

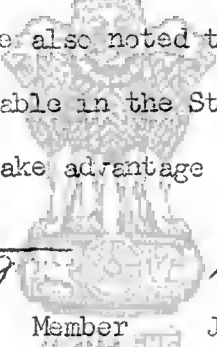
" The Committee recognises the great importance of the role played by the seafarers of India, both officers and ratings in the development of India's merchant navy. They note with satisfaction that adequate training facilities have already been provided and several welfare measures initiated. The Committee recognises further that with the current technological changes coming in, there would be greater calls on the skill and devotion of the seafaring community and certain social and human problems will arise as a result of quicker turn-round of ships. Special attention will, therefore, have to be paid to such problems. The Committee is of the view that such problems will have to be adequately and promptly dealt with in the best interests of the seafaring community".

This recommendation was borne in mind by the Committee while dealing with its terms of reference. The Committee believes that the implementation of the recommendations of the Committee will, to some extent, lead to an improvement of the socio-economic conditions and welfare of the seafaring community.

Alternative  
Employment  
for Seamen.

6.5 The question of provision of suitable re-orientation and re-training courses for seamen to equip them for allied occupations and trades was also considered by the Expert Committee. It was felt that

the Seamen's Employment Offices and the Unions of Seafarers should assess the number of seamen desirous of employment in shore industries. Past experience shows that many of the seamen were not interested in alternative shore employment because of better emoluments and attractions offered by a seafaring career. The suggestion regarding reservation of vacancies for seamen or trainees in industries like ship-repairing workshops, shipbuilding yards and Port Trusts was also considered. But this suggestion was not found to be practicable, as these organisations have their own procedure for recruitment and any deviation might create complications and cause offence to local employees. The Committee also noted that training facilities for various trades are available in the States and seamen interested in shore employment could take advantage of these facilities.

  
R.T. Parthasarathy

R.T. Parthasarathy, M.P. Member

J.W. Anson

J.W. Anson, Member.

K.K. Khadilkar

K.K. Khadilkar, Member

A.B. McSweeney

A.B. McSweeney, Member.

Leo Barnes

Leo Barnes, Member

G.D. Ved

G.D. Ved, Member.

N.C. Bharadwaj

N.C. Bharadwaj, Member.

Indrajit Singh

Indrajit Singh, Member.

P.N. Anand

P.N. Anand, Member Secretary

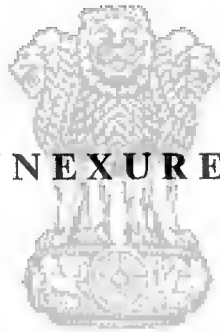
C.P. Srivastava

C.P. Srivastava, Chairman

New Delhi,

Dated: 7th May, 1969.

# ANNEXURES.



सत्यमेव जयते



TELEGRAMS  
TRANSPORTTELEX  
TRANSPORT  
D.I.312GOVERNMENT OF INDIA  
MINISTRY OF TRANSPORT & SHIPPING  
(TRANSPORT WING)

No.14-MT(13)/67.

New Delhi, 11th Agrahayana,  
1889  
2nd December, 1967.The Director General of Shipping,  
Commerce House, Ballard Estate,  
Fort, BOMBAY-1.Subject:- Setting up of an Expert Committee to go into the  
question of unemployment among Indian Seamen.  
-----

Sir,

In supersession of this Ministry's letter No.14-MT(13)/67 dated the 8th November, 1967 on the subject noted above, I am directed to say that the Government of India have decided to set up an Expert Committee consisting of the following personnel :-

- |     |   |                   |
|-----|---|-------------------|
| 1.  | Shri C.P. Srivastava,<br>Managing Director,<br>Shipping Corporation of India, Bombay. | Chairman          |
| 2.  | Shri R.T. Parthasarthy, M.P.  | Member.           |
| 3.  | Shri G.D. Ved.  | Member.           |
| 4.  | Shri J.W. Anson.  | Member.           |
| 5.  | Shri N. Latif.  | Member.           |
| 6.  | Shri Bikas Mazumdar.  | Member.           |
| 7.  | Shri K.K. Khadilkar.  | Member.           |
| 8.  | Shri Leo Barnes.  | Member.           |
| 9.  | Capt. Inderjit Singh,<br>Capt. Supdt., T.S. "Bhadra",<br>Calcutta.                    | Member.           |
| 10. | Shri P.M. Anand,<br>Deputy Director General of<br>Shipping, Bombay.                   | Member-Secretary. |

2. Captain J.P. Mason-Price of the Owners/Agents Committee (Crews) Bombay and Capt. A.B. McSweeney of the Calcutta Liners Conference, Calcutta may be allowed to attend meetings of Expert Committee as alternate members as and when Mr. J.W. Anson and Shri J. Latif are unable to attend.
3. The Expert Committee shall study the question of unemployment among Indian Seamen and likely trends in the near future and will suggest remedial action. The Committee shall also examine the question of manning scale on foreign going ships in the light of the recommendation No.28 made by the Committee on Public Undertakings on the Shipping Corporation of India Ltd.
4. The above Committee shall start functioning with immediate effect and shall submit its report to the Government of India within four months.
5. The expenditure involved on the deliberations of the Committee shall be debitable to " 54-Mercantile Marine- A-Direction ".

Yours faithfully,

Sd/-

(K. V. SANKARAN)

Deputy Secretary to the Govt. of India.

Copy to:-

1. Shri C.P. Srivastava, Managing Director, Shipping Corporation of India, Bombay-1.
2. Shri R.T. Parthasarthy, M.P., New Delhi.
3. All other members of the Committee, through the Director General of Shipping, Commerce House, Ballard Estate, Fort, Bombay-1.

Sd/-

(B. B. LAL)

Under Secretary to the Govt. of India.

GOVERNMENT OF INDIA  
MINISTRY OF TRANSPORT & SHIPPING - DIRECTORATE GENERAL OF SHIPPING

EXPERT COMMITTEE ON INDIAN SEAMEN'S UNEMPLOYMENT

-----  
Questionnaire  
-----

'Commerce House'  
Ballard Estate,  
Bombay-1  
February 17, 1968.

Background of development.

1. For nearly hundred years Shipowners in U.K. have been continuously employing Indian seamen on their Passenger as well as Cargo ships and continue to employ them because of the diligence, efficiency and loyalty for which the Indian seamen are known. In addition, during recent years certain Scandinavian and German ship-owners have also employed them. While the German Lines ceased employing them from the Second World War, the Scandinavians continued to do so upto 1960. Thus a large majority of Indian seamen have been serving on foreign flag ships.

2. The recent introduction of Bulk Carriers and Tankers of super and mammoth tonnage has not deterred any foreign line from employing Indian Seamen. Their working on tankers of hundred thousand tons is now a regular feature.

3. To cater for the requirements of trained seamen of these Shipowners, the Government of India established in early fifties three pre-sea Training Establishments which have maintained supply of trained maritime personnel. Till a decade ago, over 35,000 Indian seamen were in employment on foreign flag ships through-out the year. However, during the last ten years this figure has diminished by about 15000 through the loss of jobs, despite the gradual expansion of Indian merchant navy during the same period.

4. As a result, even under rotational system of employment on the basis of 150% of the actual jobs available, a large surplus of 4627(3057 at Bombay and 1570 at Calcutta) of trained seamen accumulated as in January 1968, among Deck, Engine and Saloon ratings inclusive of 246 trainees at Bombay and 342 at Calcutta waiting to be absorbed. By the year end 876 trainees would further add to this number awaiting absorption.

5. In spite of the reduction in the intake at the three Training Establishments and simultaneous increase in the training period from 3 to 4 months, the problem of unemployment remains acute and is likely to develop to alarming proportions.

6. Progressive unemployment among Indian seamen during recent years has been largely due to the foreign shipowners having to seek, under economic compulsion, avenues of technological advancement to ensure the continued economic viability of their fleets and competitive position in the maritime field.

7. Under these circumstances, the jobs for Indian seamen on foreign flag ships have continued to decline as a result of -

- a) discontinuance of uneconomic units.
- b) replacement of a large number of conventional ships by a small number of super tonnage ships with sophisticated and labour saving equipment, without reduction in over all tonnage.
- c) change over to super Bulk Carriers and mammoth tonnage tankers, and
- d) substantial reduction in manning by changing from conventional to integrated (General Purpose) manning.

8. Owing to these developments, the absorption of the surplus of thousands of Indian seamen has developed into a grave problem. The Government of India has, therefore, appointed a tripartite Expert Committee to undertake a thorough examination of the situation and devise appropriate measures.

9. The Expert Committee is of the considered opinion that frank views, bold suggestions and reliable information on employment potential for Indian seamen by foreign and Indian shipowners will contribute substantially to enable the Committee to make a proper assessment of the situation and to arrive at reasonably accurate conclusions and practical solutions which can be introduced in the near future.

10. Looking forward to active cooperation from the interests concerned, the Committee would be grateful to receive comprehensive reply to this Questionnaire.

I - GENERAL INFORMATION

1. Name of the Company/Agent and  
Address.

2. Number and type of ships taking  
crews from India, as on 1st January,  
1968, on behalf of the Company/  
Agency.

(Separate figures may please be  
given Company-wise and Agency-  
wise.)

3. Number of ships presently taking	Passenger	-----
crews from Bombay and/or Calcutta	Cargo	-----
for Deck, Engine Room and Saloon;	Tankers	-----
separately.	Bulk Carriers	-----
	Others	-----

4. The number of jobs available on 1st January of each year during the last 10 years.
- |      |       |
|------|-------|
| 1958 | ----- |
| 1959 | ----- |
| 1960 | ----- |
| 1961 | ----- |
| 1962 | ----- |
| 1963 | ----- |
| 1964 | ----- |
| 1965 | ----- |
| 1966 | ----- |
| 1967 | ----- |
| 1968 | ----- |
- 5.(a) Expected addition of number of ships to be manned with Indian ratings during each of the year 1968-1972
- |      |       |
|------|-------|
| 1968 | ----- |
| 1969 | ----- |
| 1970 | ----- |
| 1971 | ----- |
| 1972 | ----- |
|      | ----- |
- (b) What is the expected increase in the number of jobs for Indian seamen during this period; and to what extent and in which Departments year by year.

## II-PROBABLE CAUSES OF UNEMPLOYMENT AND SUGGESTED REMEDIAL MEASURES

6. In your opinion what are the major causes for the decline in employment despite the expansion of the World Merchant Shipping tonnage?
7. What remedial action would you suggest for reducing the unemployment among Indian seamen?

8. What, in your view, should be the age of retirement of seamen?
9. What, in your view, should be the basis for the maintenance of Rosters? That is, whether the existing system of 150% of the jobs available should be continued or the percentage should be reduced, and if so, to what extent?
10. Have you any suggestions for :  
(a) arresting the decline in the volume of employment for Indian seamen, and  
(b) achieving a steady balance between supply and demand ?
11. Have you any suggestion to make regarding approaching Companies/Countries which do not employ Indian seamen to ascertain whether they would consider employing them?

### III - RECRUITMENT POLICY

12. Do you favour the employment of integrated, that is, general purpose crews on board ships and if so, whether in all the 3 departments or only in the Deck, and Engine Room departments ?
13. To what extent do you anticipate employing general purpose crews during the next 5 years ? What would be the reduction in jobs available as a result?

#### IV - PRE-SEA TRAINING OF RATINGS

- 14.(a) What is your appreciation of the performance of the Deck and Engine Room trainees employed by you on board your vessels?
- (b) Do you consider that Pre-Sea training imparted to them at present is adequate to suit your current and near future requirements?
- (c) If the answer to (b) above is in the negative, would you kindly suggest what improvements/modifications in respect of the type and period of training would be desirable?

#### V - GENERAL

15. Do you wish to depute a representative for giving any oral evidence before the Expert Committee ?
16. Have you any other comments or suggestions not covered by this questionnaire?

-----

The reply may kindly be forwarded in triplicate, latest by the 16th March 1968, to Shri P.M. Anand, Member Secretary, Expert Committee on Unemployment among Indian Seamen, Directorate General of Shipping, Government of India, Commerce House, Ballard Estate, Bombay-1.



ANNEXURE III-A

STATEMENT SHOWING THE NUMBER OF SHIPS OF  
VARIOUS COMPANIES RECRUITING CREW FROM  
CALCUTTA AS ON THE 1ST JANUARY OF EACH  
YEAR SINCE 1960

Name of Shipping company.	As on 1st January of								
	1960	1961	1962	1963	1964	1965	1966	1967	1968
1. B.I.P.O.	57	51	62	54	51	51	44	40	42
2. BIBBY	9	10	*	-	-	-	-	-	-
3. Mourse	8	5	*	-	-	-	-	-	-
4. Bank Line	28	20	27	28	33	31	28	32	35
5. Brockle Bank	23	21	17	15	13	12	13	11	10
6. Asiatic	12	10	8	5	7	6	6	6	6
7. Clan Line	42	30	32	29	28	28	28	23	22
8. Ell. City	37	31	31	27	26	26	26	26	18
9. India Steamship	18	20	19	19	18	18	18	17	17
10. Cruickshank	7	-	-	-	-	-	-	-	-
11. Great Eastern	3	3	-	-	-	-	-	-	-
12. S.C.I.	3	2	2	7	7	6	7	11	14
13. Ratnakar	-	-	-	-	4	4	4	4	4
14. General	11	11	9	6	5	2	2	2	2
Grand Total	258	214	207	190	192	184	177 <sup>@</sup>	172	170

\* 3 Companies merged into one Group  
viz. B.I.P.B.

@ including 1 ship of APJ which  
took crew only in 1966

ANNEXURE III-B.

STATEMENT SHOWING THE NUMBER OF SHIPS OF  
VARIOUS COMPANIES RECRUITING CREW FROM  
BOMBAY, AS ON THE 1ST JANUARY OF EACH  
YEAR SINCE 1963

Name of Shipping Companies	As on 1st January of					
	1963	1964	1965	1966	1967	1968
1. P & O	30	29	24	23	23	19
2. B.I.	56	50	54	49	52	56
3. Strick Line	22	16	16	16	17	17
4. Caltex	28	30	34	35	29	29
5. Mobil	20	22	17	14	14	15
6. Anchor Line	3	3	3	4	-	-
7. Mogul Line	4	4	4	4	4	3
8. B.P.	43	41	41	41	43	42
9. City Line	37	37	37	26	26	22
10. Scindias	41	40	43	41	46	44
11. S.C.I.	21	22	26	26	31	32
12. Bharat Line	5	4	4	4	4	-
13. Great Eastern	14	16	16	14	14	13
14. London Tanker	9	13	15	17	13	14
15. Border Tanker	17	16	17	19	19	19
16. Naess Denholm	9	11	10	6	55	@
17. Jayanti	-	19	21	22	21	19
18. Reardon Smith	-	9	10	11	9	11
19. General	45	30	27	23	35	48
Grand Total	404	412	419	395	404	403

Note: B.I. Includes      i) B.I.S.Co. Ltd.,  
                                 ii) Hainc Nourse Ltd.  
                                 iii) Trident Tankers

Caltex includes      i) Texaco Overseas Tank Ship (UK) Ltd.  
                                 ii) Regent Petroleum Co. Ltd.  
                                 iii) N.V. Nederlanche Pacific

London Tanker      i) London Overseas Freighters Ltd.  
includes              ii) Mavrolean Bros. Ltd.

General }  
includes }      All the Indian and Foreign owned  
                 companies taking crew from General  
                 roster.

@ Naess Denholm ships which are  
5 in number are now taking  
crew from the General roster.



ANNEXURE IV

STATEMENT SHOWING THE OLD AND NEW MANNING  
SCALE IN RESPECT OF CARGO VESSELS

	<u>Naess Charion 25352 GRT</u>		<u>Cardiff City 10334 CRT</u>	
	<u>Old</u> <u>manning</u>	<u>New</u> <u>manning</u>	<u>Old</u> <u>manning</u>	<u>New</u> <u>manning</u>
<u>DECK</u>				
1. Serang	1	1	1	1
2. Tindal	1	1	1	1
3. Cassab	1	-	1	1
4. Seacunny	4	3	4	3
5. Seaman I	9	7	7	7
6. Seaman II	4	2	3	2
7. Trainee	1	1	1	1
8. Bhandary	2	2	2	2
9. Topass	2	1	2	1
10. Carpenter	1	1	1	1
	-----	-----	-----	-----
	26	19	23	20
<u>ENGINE</u>				
1. Serang	1	1	1	1
2. Tindal	1	-	1	-
3. Cassab	1	1	1	1
4. Donkeyman	3	3	3	4
5. Oilman	3	-	5	4
6. Fireman	5	3	2	-
7. Trainee	1	1	1	1
8. Fitter	2	2	-	-
	-----	-----	-----	-----
	17	11	14	11
<u>SALOON</u>				
1. Butler	1	-	-	-
2. Ch. Ck. & Bkr.	1	1	1	1
3. 2nd Cook	1	1	1	1
4. Pantryman	1	1	-	-
5. G.S.	4	3	5	4
6. Scullion	1	-	-	-
7. Topass	-	1	2	2
8. 2nd Butler	-	-	1	1
9. A/Laundryman	-	-	-	1
	-----	-----	-----	-----
	9	7	10	10
Grand Total:	52	37	47	41

STATEMENT SHOWING THE OLD AND NEW  
MANNING IN RESPECT OF BULK CARRIERS

	<u>Eastern City - 18620 GRT</u>		<u>Overseas Courier-20205 GRT</u>	
	Old manning	New manning	Old manning	New manning
<u>DECK :-</u>				
1. Serang	1	1	1	1
2. Tindal	1	1	1	1
3. Cassab	1	1	1	1
4. Seacunny	3	3	4	4
5. Seaman I	7	7	6	5
6. Seaman II	3	2	3	3
7. Trainee	2	1	1	1
8. Bhandary	2	2	2	2
9. Topass	2	1	2	1
10. Carpenter	1	-	1	1
11. Dk.Maint. Hand	-	1	-	-
	23	20	22	20
<u>ENGINE :-</u>				
1. Serang	1	1	1	1
2. Tindal	-	-	1	-
3. Cassab	1	1	1	1
4. Pumpman I	-	-	1	1
5. Donkeyman	9	9	3	3
6. Oilman	-	-	3	-
7. Fireman	-	-	2	5
8. Trainee	-	-	1	1
	11	11	13	12
<u>SALOON :-</u>				
1. 2nd Butler	1	1	-	-
2. Ch.Ck. & Baker	1	1	1	1
3. 2nd Cook	1	1	1	1
4. Pantryman	-	-	1	1
5. G.S.	5	4	6	6
6. Topass	2	2	1	1
7. A/Laundryman	1	1	-	-
8. Laundryman	-	-	-	1
	11	10	10	11
Grand Total:	45	41*	45	43*

\*The deduction in jobs has not been due to engagement of seamen in any category in a permanent capacity.

STATE GOVT SHOWING THE OLD AND NEW  
MANNING IN RESPECT OF TANKERS

	<u>Border Lass</u> GRT 11343		<u>Naess Champion</u> GRT 54749		<u>Mobil Comet</u> GRT 58057		<u>Edward Stevenson</u> GRT 31000	
	<u>Old</u>	<u>New</u>	<u>Old</u>	<u>New</u>	<u>Old</u>	<u>New</u>	<u>Old</u>	<u>New</u>
<u>DECK</u>								
1. Serang	1	1	1	1	1	1	1	1
2. Tindal	1	1	1	1	1	1	1	1
3. Cassab	1	1	1	-	-	-	1	1
4. Securny	4	3	4	3	4	3	4	3
5. Seaman I	8	7	10	7	10	10	12	7
6. Seaman II	3	3	4	2	3	4	2	3
7. Trainee	1	1	1	1	1	1	2	1
8. Bhandary	2	2	2	2	2	2	2	2
9. Topass	1	1	2	1	2	2	2	1
10. Carpenter	1	1	1	1	-	-	1	1
11. Dk.Maint Hard.	-	-	-	-	1	-	-	-
	<u>23</u>	<u>21</u>	<u>27</u>	<u>19</u>	<u>25</u>	<u>24</u>	<u>28</u>	<u>21</u>
<u>ENGINE</u>								
1. Serang	1	1	1	1	1	1	1	1
2. Tindal	1	1	1	-	1	1	1	1
3. Cassab	1	1	1	1	-	-	1	1
4. Pumpman I	1	1	1	1	1	1	1	1
5. Pumpman II	1	1	1	1	1	1	1	1
6. Donkeyman	3	3	3	5	3	3	3	3
7. Oilman	3	3	3	-	3	-	3	-
8. Fireman	3	2	5	2	4	4	7	6
9. Trainee	1	1	1	1	1	1	1	1
10. Fitter	-	-	1	2	1	1	1	-
	<u>15</u>	<u>14</u>	<u>18</u>	<u>14</u>	<u>16</u>	<u>13</u>	<u>20</u>	<u>15</u>
<u>SALOON</u>								
1. Butler	-	-	1	-	1	1	-	-
2. Ch.ck. Bkr.	1	1	1	1	1	1	1	1
3. 2nd Cook	1	1	1	1	1	1	1	1
4. Pantryman	1	1	1	1	-	-	2	1
5. G.S.	5	5	6	3	5	4	6	3
6. Scullion	1	-	1	-	2	1	1	1
7. Topass	1	1	-	1	-	-	1	1
8. U.S.	-	-	-	-	-	1	-	-
9. Junior G.S.	-	-	-	-	-	-	1	2
10. Laundryman	-	-	-	-	-	-	-	1
	<u>10</u>	<u>9</u>	<u>11</u>	<u>7</u>	<u>10</u>	<u>9</u>	<u>13</u>	<u>11</u>
Grand Total:	48	44*	56	40*	51	46*	61	47*

\*The deduction in jobs is not due to engagement of seamen in a permanent capacity in any category.

ANNEXURE VII

STATEMENT SHOWING THE OLD AND NEW SCALES OF  
MANING OF FOREIGN OWNED SHIPS BASED AT  
CALCUTTA.

Name of Shipping Company.	1960.				1964				1967			
	Dk, E.R. Sal. Total				Dk, E.R. Sal. Total				Dk, E.R. Sal. Total			

BULK CARRIERS

Brockle Bank (Mahsac).	26	26	14	66	20	24	13	57	19	17	11	47
B.I.S.N. (Woodarra) (Clan Line) (Ayrshire)	28	26	-	54	28	26	-	54	24	18	-	42
Ellermans' (City of Wellington)	27	22	21	70	23	18	20	61	23	18	20	61
	24	22	11	57	22	19	11	52	22	19	11	52

TANKERS

Clan Line (Scottish Pternigan).	21	16	14	51	20	16	14	50	17	15	13	45
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ANNEXURE VIII-A

STATEMENT SHOWING THE REDUCTION IN THE MANNING SCALE  
OF MOBIL SHIPS TAKING GENERAL PURPOSE CREW

80000 CLASS TANKERS

LOBIL LIDYA  
LOBIL JAPAN

		<u>Conventional Manning</u>		<u>G.P. Manning</u>		<u>Remarks</u>
		<u>Category</u>	<u>Jobs</u>	<u>Category</u>	<u>Jobs</u>	
<u>DECK</u>	Serang		1.	C.P.O. D/E.	1	Under G.P. manning there is no demarcation between the different departments. On re-grouping categories under G.P. manning according to the corresponding categories in the conventional manning, it is seen that the proposed switch over envisages a loss of 7 jobs, 5 in the Deck and one each in the ER & Sal. departments on both the tankers under 80000 class.
	Tindal		1	P.O.II.	1	
	Seacunny		3	G.P. I.	3	
	Seaman I		7	G.P. II	1	
	Seaman II		1	G.P. III	1	
	Tr. Seaman		1	G.P. Trainee	1	
	Bhandary		1	Asst. Cook	1	
	Bhandarymate		-	G.P. I	3	
	Topass		2	Machinist	1	
			18	I & II.	1	
<u>ENGINE</u>	Serang		1	-	-	The number of G.P. ratings actually engaged on these ships is 29. Besides, against one of the two jobs of Machinist, a fitter has been engaged on permanent basis.
	Tindal		1	Storekeeper	1	
	Pumpman I		1	P.O. I	1	
	Pumpman II		1	P.O. II	1	
	Donkeyman		-	G.P. I	-	
	Fireman		3	G.P. II or	-	
	Tr. Fireman		1	III.	3	
	Fitter		1	G.P. Trainee	1	
				Machinist		
				III.	1	
<u>SALOON</u>			9		8	
	Butler		1	Ch. Steward	1	
	Ch. Ck. & Bkr.		1	Ch. Cook	1	
	II Cook		1	Asst. Cook	1	
	G.S.		3	G.P. I	2	
	U.S.		1	G.P. II or		
				III. or		
	Scullion		1	Trainee.	2	
			8		7	
Total -			35		28	



STATEMENT SHOWING THE REDUCTION IN THE MANNING  
SCALE OF MOBIL SHIPS TAKING GENERAL PURPOSE CREW

50000 CLASS TANKERS

MOBIL ENERGY

MOBIL ENTERPRISE

MOBIL ENDEAVOUR

WANETA

WAPELLO

Conventional Manning			G.P. Manning		Remarks
Category		Jobs	Category	Jobs	
Deck	Serang	1	C.P.O.D/E.	1	Under G.P.Manning there is no clear demarcation between the departments. However, on re-grouping the categories under G.P.Manning, according to the corresponding categories in the conventional manning, it is seen that the proposed switch over envisages a loss of 12 jobs i.e. 9 Dk.2 ER. and 1 Saloon on each of the 5 tankers in this class.
	Tindal	1	P.O. II	1	
	Seacunny	3	G.P. I	3	
	Seaman I	9	G.P. II	1	
	Seaman II	3	G.P. III	1	
	Tr.Seaman	1	G.P.Trainee	1	
	Bhandary	2	Asst.Cook	1	
	Bhandarymate	-	G.P. I	3	
	Topass	2	Machinist I & II.	1	
		<u>22</u>		<u>13</u>	
Engine	Serang	1	-	-	The number of G.P. ratings actually engaged on the ships is 33. Besides, against one of the two jobs of Machinist, a rating has been engaged on permanent basis.
	Tindal	1	Storekeeper	1	
	Pumpman I	1	P.O. I	1	
	Pumpman II	1	P.O. II	1	
	Donkeyman	3	G.P. I	3	
	Fireman	4	G.P.II or III	3	
	Tr.Fireman	1	GP.Trainee	1	
	Fitter	1	Machinist I & II.	1	
		<u>13</u>		<u>11</u>	
Saloon	Butler	1	Ch.Steward	1	
	Ch.Ck.& Bkr.	1	Ch.Cook	1	
	II Cook	1	Asst.Cook	1	
	G.S.	4	G.P. I	3	
	U.S.	1	G.P. II or III or Trainee	2	
	Scullion	1			
		<u>9</u>		<u>8</u>	
Total:-		44	32		

ANNEXURE VIII-C.

STATEMENT SHOWING THE REDUCTION IN THE MANNING SCALE  
OF MOBIL SHIPS TAKING GENERAL PURPOSE CREW.

MOBIL

1. Royal Arrow            )   Arrow Class  
2. Sylvan Arrow           )   Tankers.  
.....

<u>Conventional manning</u>			<u>G.P. Manning</u>		<u>Remarks.</u>
<u>Category</u>	<u>Jobs</u>		<u>Category</u>	<u>Jobs</u>	
<u>Deck :</u>					
Serang	1		C.P.O. D/E.	1	
Tindal	1		P.O. II	1	There is no demarcation between departments under G.P. manning. On re-grouping the different categories under G.P. manning according to the corresponding categories on the conventional side, it is seen that the proposed switchover envisages a loss of 10 jobs (Deck-8, E.R.-1, Sl.1) on each of the two tankers under the Arrow class.
Seacunny	3		G.P. I	3	
Seaman I	8		G.P. II	1	
Seaman II	3		G.P. III	1	
Tr. Seaman	1		G.P. Trainee	1	
Bhandary	1		Asstt. Cook	1	
Bh. Mate	1		G.P. I	3	
Topass.	2		Machinist I		
			2 II Deck.	1	
	<hr/>			<hr/>	
	21			13	
	<hr/>			<hr/>	
<u>Engine:</u>					
Serang	1		Storekeeper (ER)	1	The reduction in complement under G.P. manning is not due to engagement of seamen in a permanent capacity in any category.
Tindal	1		P.O. III	1	
Pumpman I	1		P.O. II	1	
Pumpman II	1		G.P. I	3	
Donkeyman	3		G.P. II & III	3	
Fireman	3		G.P. Trainee	1	
Tr. Fireman	1		Machinist I		
Fitter	1		2 II (ER)	1	
	<hr/>			<hr/>	
	12			11	
	<hr/>			<hr/>	
<u>Saloon:</u>					
Butler	1		Ch. Stdd.	1	
Ch. Ck. & Bkr.	1		Ch. Cook	1	
II Cook	1		Asst. Cook	1	
G.S.	4		G.P. I.	2	
U.S.	-		G.P. II or		
Scullion	1		II or Trainee	2	
	<hr/>			<hr/>	
	8			7	
	<hr/>			<hr/>	
	41			31	

ANNEXURE VIII-D.

STATEMENT SHOWING THE REDUCTION IN THE MANNING SCALE  
OF MOBIL SHIPS TAKING GENERAL PURPOSE CREW.

97000 Class Tankers

Mobile Comet  
Mobile Daylight  
Mobile Brilliant

	<u>Conventional Manning</u>		<u>G.P. Manning</u>		<u>Remarks.</u>
	<u>Category</u>	<u>Jobs</u>	<u>Category</u>	<u>Jobs</u>	
DECK:	Serang	1	C.P.O. D/E.	1	There is no demar- cation between depart- ments under G.P. manning. On re- grouping the cate- gories under G.P. manning according to the corresponding categories in the conventional manning, it is seen that the proposed switch over envisages a loss of 14 jobs in all on each of the three tankers in this class i.e. 11 Deck, 2 Engine and 1 Saloon.
	Tindal	1	P.O. II	1	
	Seacunny	3	G.P. I	3	
	Seaman I	10	G.P. II	1	
	Seaman II	4	G.P. III	1	
	Tr. Seaman	1	G.P. Trainee	1	
	Bhandary	2	Asst. Cook	1	
	Bh. Mate	-	G.P. I	3	
	Topass	2	Machinist I	1	
			& II Deck.	1	
		<u>24</u>		<u>13</u>	
ENGINE	Serang	1	-	-	The reduction in manning is not due to engagement of seamen in a perma- nent capacity in any category.
	Tindal	1	Storekeeper	1	
	Pumpman I	1	P.O. I	1	
	Pumpman II	1	P.O. II	1	
	Donkeyman	3	G.P. I	3	
	Fireman	4	G.P. II or		
	Tr. Fireman	1	II.	3	
	Fitter	1	G.P. Trainee	1	
			Machinist		
			I & II.	1	
		<u>13</u>		<u>11</u>	
SALOON	Butler	1	Ch. Sted.	1	
	Ch. Ck. & Bkr.	1	Ch. Cook	1	
	II Cook	1	Asst. Cook	1	
	G.S.	4	G.P. I	2	
	U.S.	1	G.P. II		
	Scullion	1	or II or Tr.	3	
		<u>9</u>		<u>8</u>	
Total:		<u>46</u>		<u>32</u>	

ANNEXURE VIII E.

STATEMENT SHOWING THE REDUCTION  
IN THE PAYING SCALE OF MOBIL  
SHIP-TAILING GENERAL PURPOSE CREW

MOBIL  
Wenatchi.

<u>Conventional Manning</u>		<u>G.P.Manning</u>		
<u>Category</u>	<u>Jobs.</u>	<u>Category</u>	<u>Jobs.</u>	
DECK	Serang	1	C.P.O. D/E	1
	Tindal	1	P.O.II	1
	Seacunny	2	G.P.I.	3
	Seaman I	6	G.P.II	1
	Seaman II	2	G.P.III	1
	Tr.Seaman	1	G.P.Trainee	1
	Bhandary	1	Asst.Cook	1
	Bh.Nate	1	G.P.I	3
	Topass	2	Machinist	
			I & II (DK).	1
	-----	-----		
	18		13	
	-----	-----		
ENGINE	Serang	1	Storekeeper	1
	Tindal	1	P.O. I	2
	Pump an I	1	P.O.II	-
	Pumpman II	1	G.P.I	3
	Donkeyman	3	G.P.II Or	
	Fireman	2	III.	2
	Tr.Fireman	1	G.P.Trainee	1
	Fitter	1	Machinist	
			I & II	1
	-----	-----		
	11		10	
	-----	-----		
SALOON	Butler	1	Ch.Steward	1
	Ch.Ci.Bks.	1	Ch.Cook	1
	II Cook	1	Asst.Cook	1
	G.S.	4	G.P.I	2
	U.S.	-	G.P.II or II	
	Scullion	1	Trainee	2
	-----	-----		
	8		7	
	-----	-----		
Total :	37		30	

ANNEXURE IX-ASEAMEN'S EMPLOYMENT OFFICE, BOMBAY.

STATEMENT SHOWING WASTAGES UNDER DIFFERENT HEADS FROM  
1.1.1964 to 31.12.1967 AND THE ANNUAL AVERAGE WASTAGE.

Year	Overage				Death			
	Deck	Eng.	Sal.	Total	Deck	Eng.	Sal.	Total
1964	88	28	189	305	45	31	36	112
1965	187	177	323	687	81	23	43	147
1966	271	173	444	888	73	39	60	172
1967	189	139	289	617	63	21	34	118
TOTAL	735	517	1245	2497	262	114	173	549
Annual Average	184	129	311	624	65	28	43	137

Year	Medically Unfit				Disciplinary cases <sup>a</sup>			
	Deck	Eng.	Sal.	Total	Deck	Eng.	Sal.	Total
1964	1	-	2	3	44	23	27	94
1965	9	6	3	18	65	37	28	130
1966	49	36	41	126	89	25	20	134
1967	75	32	80	187	81	22	14	117
Total	134	74	124	332	279	107	89	475
Annual Average	33	18	31	83	70	27	22	119

Year	Nonresponse to calls @				Other cases			
	Deck	Eng.	Sal.	Total	Deck	Eng.	Sal.	Total
1964	216	131	75	422	48	467	73	588
1965	227	132	143	502	164	103	115	382
1966	181	140	54	375	107	80	99	286
1967	219	125	102	446	125	63	116	304
Total	843	528	374	1745	444	713	403	1560
Annual Average	211	132	93	436	111	178	101	390

Year	Grand Total			
	Deck	Eng.	Sal.	Total
1964	442	680	400	1522
1965	733	478	655	1866
1966	770	493	718	1981
1967	752	402	635	1789
Total	2697	2053	2408	7158
Annual Average	674	513	602	1789

@Excluding cases of seamen whose registration was revived subsequently on appeal.

ANNEXURE IX. B.

SEAMEN'S EMPLOYMENT OFFICE, CALCUTTA

STATEMENT SHOWING WASTAGES UNDER DIFFERENT HEADS FROM  
1.1.1964 TO 31.12.1967 AND THE ANNUAL AVERAGE WASTAGE

Year	Overage				Death				Medical unfit				Disciplinary cases.			
	D	E	S	T	D	E	S	T	D	E	S	T	D	E	S	T
1964	40	10	61	111	10	5	29	44	49	21	51	121	18	18	3	39
1965	45	8	93	146	19	2	30	51	40	20	57	117	20	17	5	42
1966	43	10	88	121	9	7	28	44	34	11	52	97	14	21	5	40
1967	62	18	127	207	8	7	36	51	25	8	40	73	9	10	4	23
Total	190	46	349	585	46	21	123	190	148	60	200	408	61	66	17	144
Annual Average	48	11	87	146	12	5	31	48	37	15	50	102	15	17	4	36

Year	Non-response to calls.				Other cases				Grand total			
	D	E	S	T	D	E	S	T	D	E	S	T
1964	131	90	79	300	24	25	33	82	272	169	256	697
1965	154	137	159	450	21	7	13	41	299	191	357	847*
1966	107	105	80	292	9	19	5	33	216	173	238	627
1967	73	60	55	188	7	6	12	25	184	109	274	567
Total:	465	392	373	1230	61	57	63	181	971	642	1125	2738
Annual Average	116	98	93	307	15	14	16	45	243	160	281	684

Total Wastage	2738	Average per year	684
Total revival	387	-do-	97
Net total wastage	2351	-do-	588

\* This excludes 213 Chinese fitters and carpenters.

ANNEXURE X-A.

Statement showing the break-up of wastages in  
the Deck & Engine Room Departments excluding  
Bhandaries and other categories to which train-  
ees are not appointed, for the period from  
1.1.1964 to 31.12.1967 .

Seamen's Employment Office, Bombay.

Year	Overage			Death			Medical- Unfitness			Disciplinary cases		
	D	E	T	D	E	T	D	E	T	D	E	T
1964	67	26	93	41	27	68	1	-	1	33	23	56
1965	169	164	333	76	21	97	8	3	11	49	35	94
1966	235	160	395	69	36	105	39	32	71	80	24	104
1967	164	128	292	59	18	77	62	25	87	73	21	94
	635	478	1113	245	102	347	110	60	170	245	103	348
Annual Average	159	120	279	61	26	87	28	15	43	61	26	87

Year	Non-response to Calls.			Other cases			Grand Total		
	D	E	T	D	E	T	D	E	T
1964	189	129	312	42	466	508	373	665	1038
1965	204	122	326	154	101	255	670	446	1116
1966	155	135	290	95	75	170	673	462	1135
1967	202	120	322	113	61	174	673	373	1046
Total	750	500	1250	404	703	1107	2389	1946	4335
Annual Average	188	125	313	101	176	277	597	487	1084



ANNEXURE A-B.

Statement showing the break-up of wastages in the  
Deck & Engine Room Departments excluding Bhandaries  
and other categories to which trainees are not appointed,  
for the period from 1.1.1964 to 31.12.1967.

Seamen's Employment Office, Calcutta.

Year	Overage			Death			Medical & unfit			Disciplinary cases		
	D	E	T	D	E	T	D	E	T	D	E	T
1964	40	10	60	10	5	15	49	21	70	18	18	36
1965	45	8	53	19	2	21	40	20	60	20	17	37
1966	643	10	53	9	7	16	34	11	45	14	21	35
1967	62	18	80	8	7	15	25	8	33	9	10	19
Total:	190	46	236	46	21	67	148	60	208	61	66	127
Annual Average	48	11	59	12	5	17	37	15	52	15	17	32

	Non-response to calls.			Other cases			Grand total			Losses Bhandary & Topass			Total.
	D	E	T	D	E	T	D	E	T	D	E	T	
1964	131	90	221	24	25	49	272	169	441	93	59		289
1965	154	137	291	21	7	28	299	191	*490	74	50		366
1966	107	105	212	19	19	28	216	173	389	55	101		233
1967	73	60	133	7	6	13	184	109	293	53	66		180
Total	465	392	857	61	57	118	971	642	1613	275	270		1068
Annual Average.	116	98	214	15	14	29	243	160	403	69	67		267

\*This excludes 213 Chinese fitters and carpenters.

ANNEXURE XI

REPORT OF THE TRAINING SUB-COMMITTEE.

Introduction:

The Training Sub-Committee was appointed by the Expert Committee with the following terms of reference: "To investigate and evaluate the existing system of recruitment and training of Seamen and to recommend the formulation of an effective training programme, which will enable Indian Seamen to perform their work and duties on Merchant Ships with greater confidence, efficiency and responsibility".

In formulating this report, the Sub-Committee took cognizance of the following basis factors affecting Sea-employment:-

- (a) Rapidly changing technology resulting in the need for new skills and higher sense of responsibility among Seamen.
- (b) The new trends in manning structure of ships, which require a versatile crew.
- (c) Development of special types of ships such as supertankers, super-bulk carriers; container ships etc., which require new methods of operation.
- (d) The continued necessity of conventional crews for many years to come, inspite of radical changes.
- (e) The basic limitations of Pre-Sea Training Schemes; in that it cannot provide all the job experiences for turning-out experienced seamen.
- (f) Gradual decline in manual nature of sea-employment and increase in work that requires more intelligence.
- (g) The current unemployment problem facing Indian Seamen.

Keeping these and other relevant factors, in mind, the Sub-Committee submits the following for consideration of the Expert Committee:

Recruitment:

The Sub-Committee is unanimously of the opinion that the key to improve efficiency, skill and versatility of Indian Seamen lies in recruitment of youngmen who have a higher level of basic education and better health standard. It, therefore, recommends:

- (a) The minimum academic qualifications of candidates seeking enrolment be raised to VIII Class. This will provide appropriate base for training in sea-craft. It will also improve the trainees' capability to acquire new skills with ease and confidence. VIII Class level of education shall also facilitate teaching of English language which is so necessary in sea-profession.

(b) In view of the hazardous nature of work at sea, higher medical standard may be prescribed in consultation with medical authorities so that our seamen are physically robust.

(c) Preference to be given to those candidates who have received training in trade tests: N.C.C., N.V.F., Home Guard, Civil Defence, Scouting etc.

(d) Introduction of a half-hour written test of an elementary nature at the time of interview and selection. A specimen question paper is shown in Appendix A.

(e) The interview procedure to be revised in consultation with those in this field in order to identify suitable candidates for Seaman training.

#### Changes in Curriculum:

The Sub-Committee believes that the existing training syllabus, admirably serves the purpose of training of conventional crews for the Merchant Marine. It, however, feels that changes can be advantageously introduced in the syllabus, at this juncture, so as to make the training more purposeful and adequate to meet the requirements of the changing face of sea-employment. It realises that machinery and equipment of ships are changing so rapidly that training in specific skills will continuously be out-dated. Keeping these guide-lines in view, the Sub-Committee has designed a new training syllabus, which is broad-based and at the same time lays emphasis on fundamentals, higher level of general skills, flexibility, team-work and sound commonsense. The syllabus includes numerous new features, such as, Deck Trainees learning the basic work and duties of Engine-Room Crews and vice versa, survival at sea, role of Merchant Navy during the War, lessons from typical disciplinary cases that come before the Disciplinary Committee, Customs and Port Regulations, knowledge of General Purpose Manning Scheme, basic principles of personnel relations etc. The revised syllabus is shown in Appendix B.

In order to achieve the purpose of upgrading the training of Seamen as envisaged in the new syllabus, the Sub-Committee recommends that the training period be increased to six months.

#### Progressive Training of Seamen at Sea:

The Sub-Committee wishes to focus the attention of all concerned that an efficient and effective seaman is the product of sound training, hard and honest work and on the job experience for considerable time. These requisites cannot be catered for, during Pre-Sea Training due to obvious limitations. In the circumstances and due to the fact that the pace of change is certain to increase in future, the Sub-Committee considers it desirable that the Ship-owners should take steps to draw-up a programme of progressive training of Seamen during the First two years of their

employment, giving them adequate opportunities to learn the intricacies of their work and duties. These organised methods of helping the seamen to acquire higher skills, coupled with provision of refresher training courses, will enable the seamen to qualify for various certificates of efficiency conducted by the Ministry of Shipping and Transport. The Sub-Committee, therefore, recommends progressive sea-training for seamen and introduction of refresher courses in Ratings' Training Establishments for Lifeboatman and Efficient Deck-hand and Sea-going Driver's Certificates.

#### Re-Training of Seamen:

Keeping pace with the changing technology poses another basic problem requiring solution; adequate re-training of Seamen in order to keep them up-to-date with new skills. The Sub-Committee believes that the Ratings Training Establishments should, from time to time, develop short duration re-training programmes based on job-analysis, and conduct them in a manner that will enable the seamen to assimilate new techniques within a short period. This has reference to short courses like the General Purpose Crew training, Operator training and Maintenance training etc.

#### Training Staff:

Effectiveness of any training programme, primarily depends on the capability and adequate strength of teaching staff members. The Ratings' Training Establishments have been in existence for nearly two decades. The teaching staff including senior staff members appear to have stayed in these Establishments for long years. This process canalises their mind in one groove and does not always permit an appreciation of new conditions and adjustment of their functions and organisations, accordingly. The Sub-Committee, therefore, recommends necessity of adequate staff strength and short familiarization study assignments for the staff with a view to ensure their coming to terms with changing environments.

#### Reviews:

It is an accepted fact that properly trained man-power ensures economy and efficiency. The Sub-Committee emphasizes the need for regular review of the training and re-training arrangements in the light of constantly changing, current and future needs of the profession. It recommends that this review should be done once every year.

#### Conclusion:

The recommendations made by the Sub-Committee are in the nature of guide-lines. While it has drawn a comprehensive training syllabus for seamen training in Ratings' Training Establishments, it has not formulated any detailed curriculum for refresher and any other training courses. The Sub-Committee, in making these recommendations, has not made any particular study of costs involved.

It is, however, of the opinion that if training of Seamen in India is to be comparable to other advanced maritime nations, the cost will necessarily be considerable.

Training Sub-Committee.

- 1) Capt. Indrajit Sing (Convenor).
- 2) Shri B.D. Wadia, Engineer Superintendent,  
Shipping Corporation of India.
- 3) Capt. Lidstone, Marine Superintendent,  
Bank Line Ltd.,
- 4) Shri J. Pestonjee, Engineer Officer,  
T.S. "Bhadra".

\*\*\*\*\*



सत्यमेव जयते

APPENDIX A

SPECIMEN QUESTION PAPER

TIME ALLOWED: HALF HOUR

Q.1. Write your name and Postal Address:

Q.2. What is your height and weight?

Q.3. Who is the Governor of your State?.

Q.4. (a)  $7 \times 13 \times 11 =$  (c)  $5772 - 37 =$

Rs.      np.  
(b)  $7205 - 19$   
- 597 - 95  
\_\_\_\_\_

(d)  $2\frac{3}{4} \times 1\frac{9}{14} =$

Q.5. (a) What is the Capital of Maharashtra State?

(b) Name three important rivers of India?

Q.6. Write ten lines in vernacular about the last Republic Day in your town or any other important Festival or event.

APPENDIX 'B'

REPORT OF THE TRAINING SUB COMMITTEE

DECK AND ENGINE ROOM

SYLLABI FOR

SIX MONTHS TRAINING COURSE

FOR RATINGS.



FIRST MONTH

(Deck)

GENERAL

1. Enrolment Formalities and Documentation, Medical Examination, Vaccination and Inoculation, Uniform issue, Kit Marking, Talk by Captain Superintendent, Executive and Engineer Officers. 12 periods
2. Prepare Trainees to meet their immediate requirements, Correct way of making Bedding, Stowage of Kit in Lockers, National Anthem, Correct Salute, Courtesies, Repeating Orders, Walk around T.S. 'Bhadra'. 6 periods
3. Aims and objectives of Training ship, Rules and regulations, Discipline requirements, Community Living, Good Behaviour Pattern, Punishments, Do's and Dont's. 4 periods
4. Organisation of Deck, E.R. and Catering Dept. on 'Bhadra' and Merchant ships, Duties and work of Deck, Engine and Catering Crew Members, Health and Hygiene, Sickbay Procedure, Money and Valuables, Letters for Leave, Wearing Uniform. 4 periods
5. Personal Safety and Fire Prevention on 'Bhadra', Sentray and other duties, Parts of ship. 3 periods
6. Emergency Evolutions, Alarm Signals, Muster List, Boat and Fire Stations. 8 periods
7. English 6 periods
8. Washing, Capt. Supdt.'s Inspection, Kit Inspection, P.T., Drill, Man Ship. 6 periods

PRACTICAL SEAMANSHIP:

9. Demonstration & Practice in whippings, knots Bends & hitches:-  
Whippings: Common, sail makers & West Country.  
Knots : Overhand, figure of 8, Reef, Sheep shank, bowline, bowline on the bight.  
Bends : Sheet & double sheet, Fisherman's carricks & double carrick.  
Hitches : Half round turn & 2 half-clove, Rolling, Timber, marline spike. 6 periods



- (Deck)
10. Boat etiquette, use of oars, practice in boat pulling. 6 periods
  11. Fire Fighting equipment - use and its location. 2 periods

THEORETICAL SEAMANSHIP:

12. Bells and Watches, Lookout and Standby Duties. 2 periods
13. Parts of Lifeboat, Lifeboat/Raft equipment. 4 periods
14. Fire Fighting equipment and its use. 2 periods
15. Accident Prevention 1 period
16. Revision 4 periods

SHIP MAINTENANCE:

17. Knowledge of Cleanship Gear, Chipping, Scalling and Painting, Holds & Bilges, Wood work, Brass work, Paint work. 16 periods

SECOND MONTH

GENERAL:

1. Washing, C/S. Inspection, Kit Inspection, P.T. Drill, Manship 7 periods
2. English 7 periods

PRACTICAL SEAMANSHIP:

3. Coiling Heaving Line, Hand Lead Line, Halyards, Throwing Heaving Line, Handling Wires, Securing to Cloats & Bitts, Passing Chain & Rope Stoppers. 6 periods
4. Life Boat pulling and handling, coming alongside, short round. 4 periods
5. Splicing Ropes - Eye, short, long and back splices. 4 periods
6. Revise Knots, Bends and Hitches. Manrope knot, Turks head. 3 periods
7. Worming, Parcelling and Serving 2 periods

(Deck)

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|-----|---|-----------|
| 8.  | Taking sounding by Hand lead, Calling out soundings.  | 2 periods |
| 9.  | Rigging Stages and Bosun's Chair  | 2 periods |
| 10. | Crews work while anchoring, operating windlass, use of Chain Hooks, securing Anchors, marking and washing cable, joining shackle. | 2 periods |
| 11. | Cargo work, different type of slings, opening and battening down Hatches, Safety precautions, union purchase.                     | 2 periods |
| 12. | Boat and Fire Drill   | 4 periods |
| 13. | Visit Merchant Ship in dock. Trainees to be shown around by Instructors.  | 2 periods |

THEORETICAL SEAMANSHIP:

- |     |   |           |
|-----|---|-----------|
| 14. | Life Boat/Raft equipment. Correct use of distress signals.  | 2 periods |
| 15. | Fire Fighting, Methods used to fight small, medium and large fires.                                     | 2 periods |
| 16. | Knowledge of Mariner's Compass, Points of Compass Helm Orders.  | 2 periods |
| 17. | Parts and types of ships, nautical terms.   | 2 periods |
| 18. | Parts of Anchor, Anchor buoy, Anchor signals, Chain Locker.   | 2 periods |
| 19. | Hand Lead line markings, reporting soundings.   | 2 periods |
| 20. | Accident prevention on ships in port and at sea, Safety on Tankers while loading cargo, cleaning tanks. | 2 periods |
| 21. | Revision  | 2 periods |
| 22. | Examinations  | 4 periods |

SHIP MAINTENANCE:

- |     |  |            |
|-----|--|------------|
| 23. | Chipping, scaling, painting, greasing and lubricating, cleaning toilets and wash-places, Life Boat and Fire Gear, Sounding Tanks and bilges, accommodation, rigging, Cargo Gear. | 25 periods |
|-----|--|------------|

THIRD MONTH

(Deck)

GENERAL:

- |    |   |           |
|----|---|-----------|
| 1. | C/S. Inspection, P.T,Drill, Kit<br>Inspection, Manship, Washing | 9 periods |
| 2. | English   | 8 periods |
| 3. | First Aid   | 1 period  |

PRACTICAL SEAMANSHIP:

- |     |  |           |
|-----|--|-----------|
| 4.  | Cargo Work: Rigging Derrick, Union<br>purchase, Slings cargo,<br>Lowering and Topping<br>Derricks, Safety Needs.   | 8 periods |
| 5.  | Wire Work: Measuring, Safe Working<br>Load, Whippings, Seizing,<br>Cutting wire, eye splice,<br>care and maintenance,<br>handling wire rope, safety.     | 6 periods |
| 6.  | Flag Work: Hoisting, Lowering, Jack,<br>Ensign, House Flag, Dress<br>Ship, Flag Etiquette, Flag<br>signals on Bridge, Making<br>up and stowage of Flags. | 2 periods |
| 7.  | Life Boat: Pulling, Handling, Rigging<br>sails and sailing.  | 6 periods |
| 8.  | Canvas Work: Flat Seam, Round Seam,<br>Tablings  | 4 periods |
| 9.  | Rigging Accommodation Ladder Pilot<br>Ladder, Hand Ropes, Boat Rope, Safety<br>Nets, Life Lines etc.   | 2 periods |
| 10. | Rope Splice: Long Splice, Splice Moor-<br>ing Hawser.  | 2 periods |
| 11. | Anchor Work: Letting go and heaving<br>Anchor, Making Fast Wire<br>Ropes and Hawsers, Secur-<br>ing Anchors and Spurling<br>Pipes.                       | 4 periods |
| 12. | Visit Ship/Dry Dock  | 2 periods |
| 13. | Boat and Fire Drill  | 5 periods |

(Deck)

THEORETICAL SEAMANSHIP

14. Cargo Work : Cleaning Holds, Bilges, Dunnage, Sweating, Ventilation, Different types of Slings, securing Cargo, Deck Cargo, Safety Precautions. 4 periods.
15. Paints: Different types of Paint, Primers, finishing, mixing, stowage, care of brushes, varnish, paint store precautions. 2 periods.
16. Crews Work and Duties: Line of authority, need to work as a Team, Lockout duties, reporting objects by bells and verbally, Standby duties, reading patent log, Call duty hands, trimming ventilators. 2 periods.
17. Life Boat: Parts of Sails, how a Boat sails, sailing terms. 2 periods.
18. Fire Fighting: Correct use of equipment. 2 periods.
19. Tankers: Tank cleaning, duties of crew while loading and discharging Oil, Safety Precautions. 2 periods.
20. Navigation Lights, Anchor Lights, Fog Signals for Ships at Anchor. 2 periods.
21. Safety Precautions and Accident Prevention. 1 period.
22. Revision. 2 periods.

SHIP MAINTENANCE:

23. Overhaul Cargo blocks, Oiling and Greasing moving units on Deck, Cleaning and Cement Washing Tanks, Peaks, Painting, Chipping, Varnish Work, Sounding Tanks and Bilges, Sails, Life Boat Falls. 38 periods.

(Deck)

FOURTH MONTH

GENERAL

1. C/S Inspection, P.T.& Drill, Washing, Kit Inspection, Manship. 7 periods.
2. First-Aid, Hygiene, Table Manners 8 periods.
3. Discipline at Sea, Good Behaviour, Team Work, Hobbies, Healthy use of Leisure. 5 periods.
4. English 7 periods.

PRACTICAL SEAMANSHIP.

5. Patent Log, Preparation for Streaming, Hauling in Patent Sounding Machine, Preparation to take Sounding, to take Sounding. 3 periods.
6. Life Boat Launching, Rigging Sails, Sailing Instructions. 2 periods.
7. Heaving Lead Competition, Take a Cast, Call out Soundings. 2 periods.
8. Anchor Work: Operating Windlass, Making Fast Ropes and Wires, Use of Stoppers, Anchor Signals, Dropping Anchor, Heaving Anchor, Washing Cable, Stowage in Chain Locker 4 periods.
9. Heaving Line Competition 1 period.
10. Life Boat Handling, Practice and Competition, Picking up Man O'Board 6 periods.
11. Rigging Gangway and Pilot Ladder 2 periods.
12. Boat & Fire Drill 4 periods.
13. Visit Ship 2 periods.
14. Canvas Work: Roping, Eyelets, Repairs. 3 periods.
15. Revision, Rope & Wire Splices 2 periods.

THEORETICAL SEAMANSHIP.

16. Bad Weather Safety Precautions 1 period.
17. Patent Log and Patent Sounding Machine 1 period.

(Deck)

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|-----|---|------------|
| 18. | Cargo and Hatch Work, Dangerous Cargoes, Special Cargo. | 2 periods. |
| 19. | Compass and Helm Orders.                                | 3 periods. |
| 20. | Life Boat and Fire Gear Revision                        | 1 period.  |

SHIP MAINTENANCE.

- |     |   |             |
|-----|---|-------------|
| 21. | Beams and Hatches, Guy Blocks, Life Boat Buoyancy Tanks, Overside Painting, Draft Marks, Canvas Repairs, Oiling, Greasing, Varnish, Working with Carpenter, Tanks and Bilges, Toilet and Wash Places. | 26 periods. |
|-----|---|-------------|

FIFTH MONTH

DECK SYLLABUS FOR E.R. TRAINEES.

GENERAL

- |    |   |            |
|----|---|------------|
| 1. | C/S Inspection, P.T.& Drill, Kit Inspection, Washing. | 6 periods. |
| 2. | English   | 6 periods. |

PRACTICAL SEAMANSHIP.

- |    |   |            |
|----|---|------------|
| 3. | Knots, Bends & Hitches: Same as No.9 of Deck Trainees First Month Course.   | 4 periods. |
| 4. | Rope Splice: Same as No.5 of Deck Trainees 2nd Month Course   | 4 periods. |
| 5. | Lead, Log, F.Sounding Machine: To take a cast, to steam and read Patent Log, Preparation for taking a cast by sounding machine. | 3 periods. |
| 6. | Mooring Hawsers, Wires, to make fast, Passing Stoppers, Springs, Messenger Rope.  | 2 periods. |
| 7. | Anchor Work : Windlass Operation, Letting go and Heaving Anchor, Stowage of Cable in Chain Locker, Securing Anchor              | 2 periods. |

(Deck)

8. Cargo, Hatch and Derrick Work: Cargo Slings, Opening and Battening Hatches, Topping and Lowering Derricks, Union Purchase - System, Guys. 4 periods.
9. Wire Splice : Whipping, Seizing, Eye Splice. 4 periods.
10. Canvas Work : Round Seam, Tabling. 2 periods.
11. Visit to Ship or Dry Dock. 2 periods.
12. Boat & Fire Drill 4 periods.
13. Gangway, Pilot Ladder 4 periods.
14. Life Boat Launching. 2 periods.
15. Revision. 2 periods.
16. Examinations 4 periods.

THEORETICAL SEAMANSHIP.

17. Life Boat/Raft: Parts and Equipment. 4 periods.
18. Boxing the Compass, Helms Orders. 2 periods.
19. Markings of Hand-lead Line. 1 period.
20. Cargo Work: Preparation of Holds, Dunnage, Ventilation, Safety during Cargo Work, Securing Cargo. 2 periods.
21. Navigation Lights, Anchor Lights, Fog Signals. 2 periods.
22. Duties of Seaman on Bridge Look-out and as Stand-by. 2 periods.
23. Work and Duties of Seamen on Tankers. 1 period.
24. Accident Prevention and Safety on Tankers. 1 period.

SHIP MAINTENANCE:

25. Chipping and Painting, Overhaul Cargo Gear, Toilets, Wash places, Tanks and Bilges, Masts and Funnel, Rigging Stage, Bosun's Chair, Canvas Repairs, Life Boat Gear. 22 periods.

SIXTH MONTH

(Deck)

GENERAL

- |     |  |            |
|-----|--|------------|
| 1.  | C/S Inspection, Man ship, Washing.   | 8 periods. |
| 2.  | First-aid.   | 1 period.  |
| 3.  | Health & Hygiene   | 2 periods. |
| 4.  | English.   | 7 periods. |
| 5.  | Articles of Agreement, Explanation of important features.  | 2 periods. |
| 6.  | G.P. Manning explanation of important features, Duties and work of G.P. Crew.                              | 2 periods. |
| 7.  | Disciplinary Committee, typical cases.   | 2 periods. |
| 8.  | Food at Sea, explanation of system, Need for understanding.  | 1 period.  |
| 9.  | Survival at Sea.   | 2 periods. |
| 10. | Police, Customs and Port Regulations, Common and Special Features.   | 2 periods. |
| 11. | Hobbies, Efficiency & Team Work, Personal Safety, Ship Owners Liability in regards to accident and injury. | 4 periods. |
| 12. | Future Progressive Training, Training on-the-job, Efficiency Certificates - Promotion.                     | 1 period.  |
| 13. | Role of Merchant Marine as Second Line of Defence.   | 2 periods. |
| 14. | Pass-out Talk by Captain Superintendent.   | 1 period.  |
| 15. | Issue of C.D.C.  | 3 periods. |

PRACTICAL TRAINING:

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|-----|---|------------|
| 16. | Derrick Work : Lowering and Topping Derrick, Union Purchase, Chaining gin fall. | 2 periods. |
| 17. | Life Boat Pulling & Handling, Coming alongside, Man O'Board.                    | 2 periods. |



(Deck)

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|-----|--|------------|
| 18. | Knots and Splices - Practice   | 2 periods. |
| 19. | Wire Splice - Practice.  | 2 periods. |
| 20. | Anchor work: Hanging Off Anchor, Breaking Cable, Operating Windlass, Securing Anchor, Making Fast Springs. | 2 periods. |
| 21. | Rigging Gangway and Pilot Ladder.  | 1 period.  |
| 22. | Cargo work: Opening and Battening Hatch  | 2 periods. |
| 23. | Canvas Work  | 2 periods. |
| 24. | Visit Ship/Dry Dock.   | 2 periods. |
| 25. | Revision.  | 6 periods. |
| 26. | Boat and Fire Drill.   | 4 periods. |
| 27. | Lead, Log and Patent Sounding Machine.   | 1 period.  |
| 28. | Examinations.  | 8 periods. |

THEORETICAL SEAMANSHIP.

- |     |   |            |
|-----|---|------------|
| 29. | Compass and Helm Orders.  | 1 period.  |
| 30. | Life Boat and Fire Gear - Use & Maintenance.  | 4 periods. |
| 31. | Life Saving Appliances Upkeep & Maintenance.  | 2 periods. |
| 32. | Work and Duties of Seamen on Tankers, need for utmost Safety Precautions while loading.   | 2 periods. |
| 33. | Seaman's work on long Sea Voyage, Different type of weather conditions, cyclonic, snow storms, fog etc., securing ship for Bad Weather. | 2 periods. |
| 34. | Look-out and Standby Duties.  | 1 period.  |
| 35. | Accident Prevention, Safety Precautions, Do's and Don'ts.   | 2 periods. |
| 36. | Dry Dock Paints.  | 1 period.  |

SHIP MAINTENANCE

- |     |  |             |
|-----|--|-------------|
| 37. | Cleaning Tanks, Holds, Bilges and Chain Locker, Painting Galleys, Funnels, Masts Stays and Overside, Chipping & Scaling, Oiling & Greasing Windlass, Davits & Winches. | 23 periods. |
|-----|--|-------------|

(Engine Room)

FIRST MONTH

GENERAL

1. Enrolment Formalities and Documentation, Medical Examination Vaccination and Inoculation, Uniform Issue, Kit Marking, Talk by Captain Superintendent, Executive and Engineer Officers. 12 periods.
2. Prepare Trainees to meet their immediate requirements, Correct way of making Bedding, Stowage of Kit in Lockers, National Anthem, Correct Salute, Courtesies, Repeating Orders, Walk around T.S. "BHADRA". 6 periods.
3. Aims and Objectives of Training Ship, Rules and Regulations, Discipline Requirements, Community Living, Good Behaviour Pattern, Punishments, Do's and Don'ts. 4 periods.
4. Organisation of Deck, E.R. and Catering Dept. on 'Bhadra' and Merchant Ships, Duties and Work of Deck, Engine and Catering Crew Members, Health and Hygiene, Sickbay Procedure, Money and Valuables, Letters for Leave, Wearing Uniforms. 4 periods.
5. Personal Safety and Fire Prevention on 'Bhadra', Sentry and other duties, Parts of Ship. 3 periods.
6. Emergency Evolutions, Alarm Signals, Muster List, Boat and Fire Stations. 8 periods.
7. English. 6 periods.
8. Washing, Capt. Supdt's Inspection, Kit Inspection, P.T., Drill, Manship, Make and Mend 6 periods.

PRACTICAL E.R. PRACTICE:

9. Tour of Engine-room, Diesel Generator rooms, Boiler-rooms Pump-room, Steering Engine and Stern Gland Compartments. Location of Feed Water Tanks, Furnace Fuel Oil Tanks and Bilge Spaces in the Machinery Compartments. 3 periods.

(Engine Room)

10. Names and uses of Common Engine-room Stores, Tools, Oils and Paints. 2 periods.
11. Life Boat etiquette, use of oars and practice in Boat-pulling. 8 periods.

THEORETICAL E.R. PRACTICE:

12. Bells and Watches, Lookout and Stand-by Duties. 2 periods.
13. Notes on Names and General Functions of the Machinery and Boilers, and Location of Feed Water & Furnace Fuel Oil Tanks and Bilge Spaces in the Machinery & Boiler Compartments. 1 period.
14. Notes on uses Common Fire Fighting Equipment. 2 periods.
15. General Revision and Solving Difficulties. 4 periods.

MAINTENANCE WORK:

16. Practice at Cleaning, Polishing & Greasing Machinery Parts, Cleaning Tank-tops & Bilges, Sweeping Boiler Tubes, Galley Stoves & Galley Funnels, Washing Paint-work and Polishing Brass work. 23 periods.

SECOND MONTH

GENERAL:

1. Washing Clothes, Captain Superintendent's Inspection & Divisions, P.T. Drill, Manship and Make & Mend. 7 periods.
2. English 7 periods.
3. Emergency Evolutions and Boat & Fire Drill. 4 periods.

(Engine Room)

PRACTICAL E.R. PRACTICE:

4. Fire Fighting Methods & Equipment.

Practice on the use of Common Fire-Fighting Equipment, such as, Fire Hoses, Portable Hand Pumps, Smoke Helmet Gear, Portable Fire Extinguishers and Fog Nozzles. Use of Quick closing Controls & Water-tight Doors.

4 periods.

5. Marine Boilers:

A study of the Lay-out of Boilers, Oil Fuel System and the Allied Machinery in Boiler-room. Practice at going through Boiler Furnances for cleaning purposes. Dismantling and boxing up few Boiler Mountings.

12 periods.

(6 periods for each Watch).

6. Oil Fuel System for Boilers :

Practice on dismantling, cleaning, changing and refitting Burner nozzles and Burners on Furnace Fron and Dummy Furnace. Opening, Cleaning and re-fitting Fuel Oil Filters and Fuel Pressure Pump.

8 periods.

(4 periods for each Watch)

7. Visit to Ship:

Trainees Visit Merchant Ship in Dock, accompanied and shown around by an Instructor.

3 periods.

8. Boat Pulling:

Life Boat Pulling & Boat Handling Practice.

4 periods.

(2 periods for each Watch)

THEORETICAL E.R. PRACTICE:

9. Fire Fighting Methods & Equipment.

Instructions on the Common Fire-Fighting Equipment in use aboard ships, with their uses on different types on Fires and in different compartments on the ship. Work of the different Fire Drill Parties, as formed on our ship. Instructions on the Working and Uses of Fire Hydrants, Fire Hoses with different types of Nozzles,

(Engine Room)

Chemical & Dry Powder Fire Extinguishers, Steam Smothering and Carbon Dioxide Gas System. Instructions on Means of Escape in the Machinery and Living Spaces. Functions and purpose of Water-tight Doors and Quick-closing Remote Controls in the Machinery and Boiler Compartments. Working and purpose of the Smoke Helmet Equipment and the Breathing Mask apparatus. 4 periods

10. Marine Boilers:

Instructions on Outline construction of a Scotch Multitubular Boiler and a Yarrow Water Tube Boiler, with names and purpose of the Major Internal and External Components. Names and Functions of the Common Boiler Mountings. Duties of the Fireman on Watch at Sea and in Port. Reading of the Water Gauge Columns and Pressure Gauges. Instructions on the Feed Water arrangement with these two types of Boilers. Instructions on the working and purpose of the Exhaust Gas Boilers, as in use on Motor Ships. Stress on observance of Safety Precautions and Prevention of Fire Hazards in the Boiler rooms. 6 periods.

11. Oil Fuel System for Boilers:

Instructions regarding Outline Lay-out of Oil Fuel System. Path of Oil Fuel from Bunker Tanks to Burners. Functions of Transfer Pumps, Settling Tanks, Pressure Pumps, Heaters, Filters, Burners and Nozzles. Duties of Fireman on Oil Fired Boilers. Working of forced Draught System. Importance of maintaining correct Oil and Air Pressures and Oil Temperatures for efficient Combustion. Reading of Thermometer and Pressure Gauges. Stress on thorough Cleanliness in the Boiler-room and Precautions against Fire. 4 periods.

12. Steam Engines, Main Propulsion:

Instructions on the General Working of the Steam Turbine Engine and the Steam Reciprocating Engine. Path of Steam and Exhaust. Names and Functions of the Major Working Components. Methods of Lubrication and the grades of Lubricating Oils used for different working parts of these Engines. Functions and purpose of the Main Condensers, Main Circulating Pumps and Air Pumps. Path of Condensate to the 8 periods. -45-

(Engine Room)

13. Revision, Discussion and Solving Difficulties 6 periods
14. Examinations 4 periods  
(2 periods for each watch)
15. Maintenance Work.

Practice at Scaling, Cleaning & Painting, Cleaning & Greasing Machinery Parts, Polishing Brass work, Cleaning and painting in Tanks, Bilges and under-water parts, Cleaning Boiler Furnaces and Soiler Tubes, and assisting Ship's Staff on Petty Repairs. 40 periods

(12 periods are allotted wholly for Maint. Work. The remaining 28 periods are divided equally for Main. Work and Practical Instructions to Each Watch, alternately).

THIRD MONTH

GENERAL

1. Washing Clothes, Captain Superintendent's Inspection and Divisions, P.T. & Drill, Manship & Make & Mend. 9 periods.
2. English 9 periods.
3. First Aid. 1 period
4. Boat & Fire Drill 5 periods.

PRACTICAL E.R. PRACTICE.

5. Steam Reciprocating Propulsion Engine

A Study of the Lay-out of the Steam Reciprocating Propulsion Engines, with names and functions of the Working Components. Practice at Opening, Cleaning, Greasing and Re-fitting different Components on the Engines.

16 periods.  
(8 periods for each Watch)

6. Diesel Machinery

A Study of the Lay-out of the Diesel Generator and Compressor Engines. The arrangement of the Fuel, Cooling & lubricating Systems. Names of working Components. Practice at Dismantling, Cleaning & re-fitting Components on the Main Generator Engine and the Air Compressor Engine.

8 periods  
(4 periods for each Watch)

VISITS:

7. Trainees Visit Merchant Ship and Dry Deck, accompanied and shown around by an Instructor. 2 periods.
8. Trainees Visit the Marine Engineering College (D.M.E.T.) accompanied and shown around by an Instructor. 2 periods.
9. Auxiliary Machinery  
a. Study of the Lay-out of the E.R. Auxiliary Machinery and their Functions. Practice at Dismantling & Re-fitting Components on the Steam Generators, Evaporator, Evaporator Pump, Main Circulating Pumps, General Service Pump, Fan Engines and Feed Pumps. 16 periods.  
(3 periods for each Watch).
10. Boat Pulling.  
Life Boat Pulling and Boat Handling Practice under Cars. 2 periods.
11. RAISING STEAM:  
Practice at Raising Steam on the Boiler initially, by hand pump and then change over to Steam Pressure Pump and to put into use the Auxiliary and Deck Machinery for Demonstration Purposes and Greasing the Working Parts. Duties on Boiler and Auxiliary and Deck Machinery 4 periods.
12. SLINGING MACHINERY PARTS:  
Practice on Slinging, Hoisting, Lowering and Shifting Machinery Parts with the help of Chain Blocks. Stress on Personal Safety, Prevention of Accident and Correct Methods of fastening Slings, Eye-bolts, Shackles and Hamling Rope. 4 periods.
13. E R. TOOLS & STORES:  
Practice on the uses and Stowage of E.R.Stores, Tools, Paints & Lubricants. 2 periods.

THEORETICAL E.R. PRACTICE:

14. INTERNAL COMBUSTION ENGINES:

Instructions on the General Working and the Cycles of a 2 Stroke and a 4 - Stroke Single-acting Marine Propulsion Diesel Engine on Board Merchant Ships. Names and functions of the Major Working Components of these two types of Engines.

Simple Notes on General Working and Purpose of small Petrol Driven and Diesel Driven 2-Stroke and 4-Stroke Internal Combustion Engines.

Simple Notes on working of the Heavy Oil Heaters, Filters, Separators and centrifuging Plants.

Instructions on outline arrangement and functions of :-

- a) Main Engine Lubrication System.  
Main Engine Scavenge Air and Exhaust Gas Systems.
- b) Main Engine Fuel Injection System.

Knowledge of the Duties of E.R.Crew. Members on a Motor Vessel in Port and at Sea.

10 periods.

15) FIRE FIGHTING EQUIPMENT & METHODS:

Instructions on the uses of Fire Fighting Equipment commonly used on Tankers.

2 periods.

16) SAFETY PRECAUTIONS:

Knowledge of common causes of Explosions on the Boilers and Machinery aboard ships, and prevention to be exercised.

Useful DO's and DON'Ts for Prevention of Accidents and Fires in the Machinery & Living Spaces

2 periods.

17. MARINE BOILERS:

Discussion in the form of Questions and Answers and Solving Difficulties regarding Instructions imparted earlier.

1 period.



(Engine Room)

18. OIL FUEL SYSTEM FOR BOILERS:

Discussion in the form of Questions and Answers and Solving Difficulties regarding Instructions imparted earlier.

1 period.

19. STEAM ENGINES, MAIN PROPULSION:

Discussion in the form of Questions & Answers and Solving difficulties regarding Instructions imparted earlier on Reciprocating & Turbine Engines.

2 periods.

20. INTERNAL COMBUSTION ENGINES:

Discussion in the form of Questions & Answers and Solving Difficulties regarding Instructions imparted earlier

2 periods.

21. COMMON AUXILIARY MACHINERY:

Brief Description on the Types and Functions of Common E.R. Auxiliary Machinery, such as, General Service Pumps, Feed Pumps, Deck Service Pumps, F.W. & S.W. Pumps, Evaporators, Distillers, Generators, etc. Duties of the Watch Keepers in Port and at Sea. Methods of Lubrication of the Working Parts.

4 periods.

22. ELECTRICITY:

Brief notes on Elementary Principles and Working an Electric Generator. Knowledge of Distribution of Electric Circuits. Simple Notes on connection of Switches, Plugs, Holders and wires. Method of testing and renewing a Blown Fuse.

4 periods.

23. COMMON DECK MACHINERY:

Simple Notes on the Common Types and the Functions of a Windlass, Winch and Steering Gear. Duties of a Watch Keeper and the methods of Lubricating the Working Parts.

2 periods.

24. CLEANLINESS IN MACHINERY SPACES:

Emphasis on observing and maintaining utmost cleanliness in Machinery Spaces and the Prevention of Fire and Accidents. Important Aspects on Watch Keeping Duties.

2 periods.

(Engine Room)

25) PRESSURE GAUGES & THERMOMETERS:

Emphasis and Practice correct reading of Pressure Gauges and Thermometers.

1 period.

26) GOOD BEHAVIOUR & WORK ATTITUDE:

Important points for Good Behaviour Pattern, Punctuality, Discipline and Work Attitude as a Member of the Crew aboard Merchant Ships

1 period.

27) General Revision

2 periods.

MAINTENANCE WORK:

- 28) Practice at Scaling, Cleaning & Painting, Cleaning & Freasing Machinery Parts, Polishing Brightwork, Cleaning, Painting/ Cement Washing in Tanks, Bilges and underwater Parts of the Hull, Cleaning Boiler Furnaces and Tubes, and assisting Ship's Staff on Petty Repairs.

40 periods  
(20 periods for each Watch).

FOURTH MONTH

GENERAL:

- 1) Captain Superintendent's Inspection, P.T. and Drill Washing Clothes, Kit Inspection, Man-ship, Make and Mend. 7 periods.
- 2) First Aid, Hygiene & Table Manners 8 periods.  
(4 periods for each watch)
- 3) English 7 periods.
- 4) Emergency Evolutions and Boat & Fire Drill 6 periods.
- 5) Life Boat Pulling & Boat Handling Practice and Competition. 7 periods.

PRACTICAL E.R. PRACTICE:

6) COMMON DECK MACHINERY:

Practice at engaging and dis-engaging the Gear Wheels and Gypsies. Opening, Cleaning and re-fitting of Working Parts of the Windlass, Mooring Winch and Steering Engine

8 periods.  
(4 periods for each watch)

- 7) Oil Fuel Flashing Up Competition.

2 periods.

(Engine Room)

- 8) Slingsing Machinery Parts Competition 2 periods.

9) RAISING STEAM:

Practice at Raising Steam on the Boiler, initially, by Hand Pump and then change over to Steam Pressure Pump and to put into use the Auxiliary and Deck Machinery for Demonstration Purposes and Greasing the Working Parts. Duties on the Boiler and Auxiliary and Leck Machinery.

4 periods.

10) VISIT TO SHIP/DRY DOCK.

2 periods.

THEORETICAL E.R. PRACTICE

- 11) Revision & Discussion in the form of Question and answers on the Instructions imparted regarding the E.R. Auxiliary and Deck Machinery. 3 periods.

- 12) Revision and Discussion in the form of Questions and answers on the Instructions Imparted regarding Steam Boilers, Steam Propulsion Engines and Oil Fuel System. 5 periods.

- 13) Revision and Discussion in the form of Questions and answers on the Instructions Imparted regarding Diesel Engines and Fire Fighting Methods and Equipment. 4 periods.

MAINTENANCE WORK:

- 14) Practice at Scaling, Cleaning and Painting, Cleaning and Greasing Machinery Parts, Polishing Brasswork, Cleaning, Painting or Cement Washing in Tanks, Cleaning and Painting Bilges and underwater Parts of Hull, Cleaning Boiler Furnaces and Tubes, and assisting Ship's Staff on Maintenance and Petty Repairs on Machinery 46 periods.

(24 periods wholly allotted for Maint. Work. The remaining 22 periods are divided equally for Main. Work and Practical/Theoretical Instructions to each Watch, alternately).

(Engine Room)

FIFTH MONTH

E.R. SYLLABUS FOR DECK TRAINEES.

GENERAL:

1. Captain Superintendent's, P.T. & Drill, Kit Inspection, Washing Clothes 6 periods.
2. English. 6 periods.
- 3) Boat & Fire Drill 4 periods.

PRACTICAL E.R. PRACTICE:

- 4) Tour of Boiler and Machinery Spaces, Pump-rooms, Steering Engine and Stern Gland Compartments, with the General Functions of the various Machinery 2 periods.
5. Names & Uses of Common Engine-room Stores, Tools, Oils and Paints. 2 periods.
6. BOILER VALVES - Practice at going through Boiler Furnaces. Dismantling and re-fitting few Boiler Mountings. 4 periods  
(2 periods for each watch).
7. OIL FUEL COMPONENTS:  
Practice at Changing, Cleaning & Re-fitting Burners. Dismantling & re-fitting Oil Filters & Pressure Pump. 4 periods.
- 8) AUXILIARY MACHINERY:  
Practice at Dismantling & Re-fitting parts of Feed Pumps, Generators, G.S. Pump, Air Pumps and Evaporator Pump. 8 periods  
(4 periods for each watch).
- 9) MAIN ENGINES:  
Practice at Dismantling & re-fitting some Components of the Steam Reciprocating Engines 8 periods.  
(4 periods for each watch)
- 10) DECK MACHINERY:  
Practice at Dismantling Components on the Windlass and Mooring winch. 4 periods  
(2 periods for each watch).

(Engine Room)

11. RAISING STEAM:

Practice at Raising Steam on the Boiler, initially, by Hand Fuel Pump and then change over to Steam Pressure Fuel Pump. Put Auxiliary & Deck Machinery into use for Demonstration Purposes.

4 periods.

12. Visit to Ship and Dry Dock, accompanied and shown around by an Instructor.

2 periods.

THEORETICAL E.R. PRACTICE:

13. MARINE BOILERS:

Outline Construction and Functions of a Scotch Multitubular Boiler and a Yarrow Water Tube Boiler. Names of Internal & External Components. Duties of a Watch Keeper at Sea and in Port. Functions of Boiler Mountings.

4 periods.

14. OIL FUEL SYSTEM FOR BOILERS:

Outline Lay-out of Oil Fuel System. Path of Oil from Bunkers to Burners. Functions of Working Components. Duties of a Watch Keeper. Working of Forced Draught. Importance of Correct Oil Pressure and Temperature for Efficient Combustion.

4 periods.

15. STEAM PROPULSION ENGINES:

Working of Reciprocating & Turbine Propulsion Engines. Path of Steam & Exhaust. Names and Functions of working Components. Methods and Grades of Lubricants used for Lubrication of various working Parts. Duties of a Greaser

4 periods

16. DIESEL PROPULSION ENGINES:

Working of a 2 Stroke & 4 Stroke Diesel Propulsion Engine. Names & Functions of working Components. Outline arrangements for Engine Cooling and Lubricating Systems. Duties of a Watch-Keeper.

4 periods.

17. AUXILIARY MACHINERY:

Working of Common E.R. Auxiliary Machinery, such as, Air Pumps, Condensers, G.S. Pumps, Feed Pumps, Main Circulating Pumps, Evaporators, Distillers, Generators, F.W. & S.W. Pumps and Deck Service Pumps. Duties and Methods of Lubrication of Working Parts.

4 periods.

(-ngine Room)

18. SAFETY PRECAUTIONS:

Common Causes of Explosions on Boilers and Machinery on Ships, and the Preventions to be exercised. Useful DO's and DONT's for Prevention of Firea and Accidents.

2 periods.

19. PRESSURE GAUGES & THERMOMETERS:

Emphasis and Practice at correct readings. Stress on Important Aspects on Watch-Keeping Duties.

2 periods.

20. COMMON DECK MACHINERY:

Simple Notes on the Common Types and the Functions of Windlass, Winches and Steering Gear. Duties of a Watch Keeper and Methods of Lubricating the Working Parts.

2 periods

21. CLEANLINESS IN MACHINERY SPACES:

Emphasis on observing and maintaining utmost cleanliness in the Machinery & Boiler Compartments and the prevention of Fire and Accidents. Important points for Good Behaviour Pattern, Punctuality, Discipline and Work Attitude as a Member of the Crew on Merchant Ships.

2periods.

22. FIRE FIGHTING METHODS ON TANKERS.

Instructions on the uses of the Fire-Fighting Equipment commonly used on Tankers.

1 period.

23. Revision and Solving Difficulties:

5 periods

24. EXAMINATIONS

4 periods

(2 periods for each watch).

MAINTENANCE WORK:

25. Practice at Scaling Cleaning and Fainting in the Machinery & Boiler Spaces, Cleaning and Greasing Machinery, Polishing Brightwork, Cleaning & Painting/Cement Washing Tanks, Cleaning Bilges and Tank-Tops, Cleaning Boiler Furnaces and Tubes, Cleaning Galley Funnels, and Stoves, and ssisting Ship Staff on petty Repairs and Maintenance on Machinery and Boilers.

32 periods.

(16 periods for each watch).

(Engine Room)

SIXTH MONTH

GENERAL

1. C/S Inspections & Divisions, Evolutions, Man Ship, Washing Clothes and Prize Distribution Parade. 8 periods.
2. First Aid. 1 period.
3. Health & Hygiene 2 periods.
4. English 7 periods.
5. Articles of Agreement, Explanation of Important Features. 2 periods.
6. General Purpose Manning - Explanation of Important Features. Duties & Work of G.P. Crew. 2 periods.
7. Disciplinary Committee - Typical Cases. 2 periods.
8. Food at sea, Explanation of System and Need for understanding. 1 period.
9. Survival at Sea. 2 periods.
10. Police, Customs and Port Regulations, Common and Special Features. 2 periods.
11. Hobbies, Efficiency & Team Work, Personal Safety, Shipowner's Liability regarding Accidents & Injury. 4 periods.
12. Future Progressive Training, Training on the Job, Efficiency Certificates - Promotions. 1 period.
13. Role of Merchant Marine as a Second Line of Defence. 2 periods.
14. Pass-out Talk to Trainees by the Captain Superintendent. 1 period.
15. Issue of C.D.C. at the Shipping Office. 3 periods.
16. Boat and Fire Drill. 4 periods.
17. Visit to Ship and Dry Dock. 2 periods.

(Engine Room)

PRACTICAL E.R. PRACTICE

18. Boilers - Practice at dismantling and re-fitting Boiler Mountings. 2 periods.
19. OIL FUEL SYSTEM FOR BOILERS - Practice at dismantling and re-fitting Oil Fuel Unit Components. 2 periods.
20. AUXILIARY MACHINERY - Practice at dismantling and re-fitting Working Parts of Steam Generator and General Service Pump. 2 periods.
21. E.R.STORES & TOOLS. - Practice at Stowing and arranging Stores and Tools in the Store-rooms. 2 periods.
22. MAIN PROPULSION ENGINES - Practice at Dismantling and-re-fitting Working Components. 2 periods.
23. Lifeboat Pulling and Handling Practice. 2 periods.

THEORETICAL E.R.PRACTICE.

24. FIRE FIGHTING - Stress on correct use of Equipment. Discussion in the form of Questions and Answers. 2 periods.
25. MARINE BOILERS - Emphasis on Watch-keeping Duties and reading of the Pressure Gauges and Thermometers. Discussion and Revision of Previous Instructions. 2 periods.
26. STEAM PROPULSION ENGINES - Emphasis on Watch-keeping Duties. Close Attention to Lubricating Systems & Methods. Developing a keen sense of touch, smell and hearing for detection of any unusual heat, odour and sound from the Engines. Discussion and Revision of Previous Instructions. 2 periods
27. DIESEL PROPULSION ENGINES - Emphasis on Watch-keeping Duties. Close attention to Lubricating Cooling & Heating Systems. Developing a keen sense of touch, smell and hearing for detection of any unusual heat odour and sound from the Engines. Discussion and Revision of Previous Instructions. 2 periods.



(Engine Room)

28. AUXILIARY MACHINERY - Discussion and Revision of previous Instructions. Emphasis on Watch-keeping Duties, in Port and at Sea. 2 periods.
29. Safety Precautions and Prevention of Fire and Accidents. Important DO's AND DON'Ts 1 period.
30. Proper Mental Approach to Problems arising on the job on ships. Work attitude and Pride in the Profession. 1 period.
31. Revision and Solving Difficulties. 6 periods.
32. Examinations. 10 periods.

MAINTENANCE WORK

33. Engaged on Cleaning & Painting in Tanks, Bilges, Hull internally in the Boiler & Machinery Spaces, Galley Stoves and Funnels, Boiler Furnaces & Tubes, Brightwork, Assisting Ship's Staff on Maintenance and Petty Repairs on Boilers and Machinery. 28 periods.



DECK SYLLABUS

FIRST MONTH

FIRST WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Enrolment Form- malities and documentation (1)	Uniform issue/ Medical exami- nation (1)	Division of Trainees for Deck and E.R. Department (2)	Washing Clothes (8)	Vaccination and inocula- tion (1)	Health and Hygiene (4)
Second	-do-	-do-	Allocating Numbers and Watches etc. (2)	Talk by Capt. Supdt. Ex. and Eng. Officers (1)	Routine, Standing Orders (2)	English (7)
Third	-do-	-do-	Uniform issue and Kit Marking (1)	Tour of ship <del>Fami-</del> liarisa- tion (2)	Disciplinary Rules. Aims and objec- tives. (3)	Emergency Evolutions (6)
Fourth	Prepare Trai- nees for imm- ediate require- ments. (2)	-do-	-do-	-do-	-do-	Muster List (6)

DECK SYLLABUSFIRST MONTHSECOND WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Need for Discipline. Good Behaviour - Do's & Dont's (3)	Emergency Signals (6)	Parts of ship. Types of ship. (5)	Washing (8)	Life Boat Pulling (10)	
Second	Important parts of ship (Notes) (2)	Putting on Life Jackets (6)	Personal Safety & Fire Prevention (5)	English (7)	-do-	Second Saturday Holiday Make & Mend.
Third	Organisation (4)	Bells & Watches (12)	Duty Keeping on 'Bhadra' (5)	Revision (16)	Ship Maintenance (17)	
Fourth	-do-	Basic Work of Deck, E.R. Crew (4)	Community Living (3)	Solving difficulties. (16)	Boat and Fire Drill (6)	

<u>DECK SYLLABUS</u>		<u>FIRST MONTH</u>		<u>THIRD WEEK</u>		
Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Lifeboat Pulling (10)	Knots, Bends & Hitches (9)	Knots, Bends & Hitches (9)	Washing (8)	Fire Fighting - ing equipment & Inspection (14)	C/S. Division & Inspection (8)
Second	-do-	-do-	-do-	English (7)	-do-	English (7)
Third	Ship Main-tenance Wood Work (17)	Ship Main-tenance Paint Work (17)	Ship Main-tenance Scaling, Shipping (17)	Ship Main-tenance Clean ship (17)	Ship Main-tenance Clean ship (17)	Accident Prevention (15)
Fourth	-do-	-do-	-do-	-do-	-do-	Boat & Fire Drill (6)

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DECK SYLLABUSFIRST MONTHFOURTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Krcs, Bends & Hitches (9)	Life Boat/ L.Raft Parts & equipment. (12)	Lifeboat Pulling (10)	Washing (8)	Life Boat/ Raft equip- ment. (13)	P.T. & Drill (8)
Second	-do-	-do-	-do-	English (7)	-do-	English (7)
Third	Ship Main- tenance Holds & Bilges (17)	Revision (16)	Revision (16)	Ship Main- tenance Painting (17)	Ship Main- tenance Painting (17)	Fire Fight- ing. Use of equip- ment. (11)
Fourth	-do-	-do-	-do-	-do-	-do-	Boat & Fire Drill (6)

1) Numbers in bracket indicates instructions subject as stated in detailed syllabus.

2) Combined classes for Deck & E.R. Trainees for ten days.

<u>DECK SYLLABUS</u>		<u>SECOND MONTH</u>			<u>FIFTH WEEK</u>	
Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Chipping & Sealing (23)	Ship Main- tenance Cleaning Paint work (23)	Ship Main- tenance Painting (23)	Washing (1)	Ship Main- tenance Toilets, Wash places (23)	P. & T. Drill (1)
Second	-do- Sounding Tanks Bilges, (23)	Sounding Tanks Bilges & (23)	Sounding Tanks & Bilges. (23)	English (2)	-do- (2)	English (2)
Third	Lifeboat/L.Raft equipment (14)	Fire Fighting methods (15)	Heaving Line (3)	Stoppers (3)	Wire Ropes (3)	Compass (16)
Fourth	-do-	-do-	-do-	-do-	-do-	Boat & Fire Drill. (12)

DECK SYLLABUS

SECOND MONTH

SIXTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Maintenance Oiling and Greasing (23)	Ship Maintenance Life Saving Appliances (23)	Ship Maintenance Fire Equipment. (23)	Washing (1)	Ship Maintenance Cargo Gear (23)	
Second	-do-	-do-	-do-	English (2)	-do-	Second Saturday
Third	Lifeboat Pulling & Handling (4)	Rope Splice (5)	Rope Splice (5)	Knots, Bends Revision (6)	Knots, Bends (6)	Holiday Make & Mend.
Fourth	-do-	-do-	-do-	Compass, Helm Orders. (16)	Boat & Fire Drill. (12)	

DECK SYLLABUSSECOND MONTHSEVENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Ropes and Wires (23)	Ship Main- tenance Accommoda- tion (23)	Ship Main- tenance Funnel, etc. (23)	Washing (1)	Visit ship/ Pier C/S. Divisions	
Second	Worming (7)	-do-	-do-	English (2)	-do-	English (2)
Third	Nautical Terms (17)	Knots, Bends (6)	Hand Lead (8)	Hand Lead (19)	Lifeboat Pulling & Handling (4)	Accident Prevention (20)
Fourth	-do-	Worming (7)	-do-	-do-	-do-	Boat & Fire Drill (12)



DECK SYLLABUSSECOND MONTHEIGHTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Rigging (23)	Ship Main- tenance Toilet, Wash- places. (23)	Ship Main- tenance/ Exam. (22)	Washing (1)	Ship Main- tenance/ Exam. (22)	Man Ship. Kit Ins- pection (1)
Second	-do-	Oiling and Greasing (23)	-do-	English (2)	-do-	English (2)
Third	Busun's Chair (9)	Revision (21)	Anchor work (18)	Anchor work (10)	Cargo work (11)	Safety on Tankers (20)
Fourth	-do-	-do-	-do-	-do-	-do-	Boat & Fire Drill (12)

DECK SYLLABUSTHIRD MONTHNINTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Cargo Work (14)	Cargo Work (14)	Wire Work (5)	Washing (1)	Wire Work (5)	C/S. Inspection (1)
Second	-do-	-do-	-do-	English (2)	-do-	English (2)
Third	Ship Main- tenance Cargo Gear (4)	Ship Main- tenance Windlass, Winches (23)	Ship Main- tenance F.W.Tanks (23)	Ship Main- tenance D.B.Tanks (23)	Ship Main- tenance Peaks & Chain Locker (23)	First Aid (3)
Fourth	-do-	-do-	-do-	-do-	-do-	Boat & Fire Drill (13)

DECK SYLLABUSTHIRD MONTHTENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Wire Work (5)	Seamanship Paints (15)	Seamanship Crew's Work & Duties (16)	Washing (1)	Seamanship Light & Fog Signals. (20)	
Second	-do-	-do-	Flag Work (6)	English (2)	-do-	Second Satur- day Holiday Make & Mend
Third	Ship Main- tenance Paint Work (23)	Ship Main- tenance Cargo Blocks (4)	Ship Main- tenance Greasing & Lubrication (23)	Ship Main- tenance Sails & Screens (23)	Ship Main- tenance Fire Gear (18)	
Fourth	-do-	-do-	-do-	-do-	Boat & Fire Drill (13)	

DECK SYLLABUSTHIRD MONTHELEVENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Safety Pre-cautions (21)	Lifeboat Handling (7)	Lifeboat Handling & Sailing (7)	Washing (1)	Lifeboat Handling & Sailing (7)	P.T. & Drill (1)
Second	Crews Work & Duties (16)	-do-	-do-	English (2)	-do-	English (2)
Third	Ship Maintenance (23)	Ship Maintenance Chipping & Scaling (23)	Ship Maintenance Changing L. Boat Falls (23)	Ship Maintenance Hawser (23)	Ship Maintenance Painting (23)	Fire Fighting Tankers (18)
Fourth	Toilet & Wash Places ( )	-do-	-do-	-do-	-do-	Boat & Fire Drill (13)

DECK SYLLABUS

THIRD MONTH

TWELFTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Canvas Work (8)	Canvas Work (8)	Rope Splice (10)	Washing (1)	Gangway & Pilot Ladders. (9)	Manship. Kit Inspection (1)
Second	-do-	-do-	-do-	English (2)	-do-	English (2)
Third	Ship Main- tenance Accommodation (23)	Ship Main- tenance Decks & Storeroom (23)	Ship Main- tenance Tanks & Bilges (23)	Ship Main- tenance Storerooms (23)	Ship Main- tenance Sounding Tanks & Bilges. (23)	Revision (22)
Fourth	-do-	-do-	-do-	-do-	-do-	Port & Fire Drill (13)

DECK SYLLABUSTHIRD MONTHTHIRTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Cargo Work (4)	Cargo Work (4)	Visit Ship (12)	Washing (1)	Anchor Work (11)	C/S. Inspection (1)
Second	-do-	-do-	-do-	Flag Work (6)	-do-	English (2)
Third	Seamanship Tankers (19)	Lifeboat Sailing (17)	Ship Main- tenance Chain Locker (23)	Ship Main- tenance Stairways (23)	Mooring Ropes & Wires (11)	Revision  (22)
Fourth	-do-	-do-	-do-	-do-	-do-	Boat & Fire Drill (13)

DECK SYLLABUSFOURTH MONTHFOURTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Beams & Hatches (21)	Ship Main- tenance Guy Blocks (21)	Ship Main- tenance Lifeboat (21)	Washing (1)	Ship Main- tenance Toilet & Wash places (21)	P.T. & Drill (1)
Second	-do-	-do-	-do-	English (4)	-do-	English (4)
Third	First Aid, Hygiene (2)	First Aid, Hygiene (2)	Table Manners (2)	Table Manners (2)	Emergency Evolution relations, Man O'Board Hobbies. (10)	Personnel (3)
Fourth	-do-	-do-	-do-	-do-	-do-	Boat & Fire Drill (12)

FIFTEENTH WEEK

FOURTH MONTH

DECK SYLLABUS

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Int. Flags (21)	Ship Main- tenance Cargo Gear (21)	Ship Main- tenance Overside Work (21)	Washing (1)	Ship Main- tenance Varnish, Polish. (21)	
Second	-do-	-do-	Draft Marks	English (4)	-do-	Second Saturday Holiday Make & Mend.
Third	Discipline at Sea (3)	Discipline at Sea (3)	Compass & Helix Orders (19)	Compass & Helix Orders (19)	Log/P.S. Machine	
Fourth	Emergency Evolution Man O'Board (10)	Articles of Agreement (3)	-do-	P.L.Cg/P.S. Machine (17)	Boat & Fire Drill (12)	



DECK SYLLABUS

FOURTH MONTH

SIXTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Ciling & Greasing (21)	Ship Main- tenance Storrerooms (21)	Heaving Lead Comp. (7)	Washing (1)	Ship Main- tenance Mooring Ropes Wires (8)	C/S. Ins- pection (1)
Second	-do-	-do-	-do-	English (1)	-do-	English (4)
Third	P. Log/P. So. Mach. (5)	Lifboat Launch- ing (5)	L. Boat Handl- ing Comp. Practice. (10)	Heaving Line Comp. (9)	Anchor Work (8)	Safety Pre- cautions. (16)
Fourth	-do-	Sails & Sailings. (6)	-do-	Lifboat Handling Comp. (10)	-do-	Boat & Fire Drill. (12)

DECK SYLLABUSFOURTH MONTHSEVENTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Canvas Work (14)	Ship Main- tenance Tackles & Blocks. (21)	Ship Main- tenance Painting (21)	Washing (1)	Ship Main- tenance Tanks & Pillages (21)	Kit Inspec- tion ManShip (1)
Second	-do-	-do-	-do-	English (4)	-do-	English (4)
Third	Gangway & P. Ripe, Wire Ladder (11)	Syllice, Revision. (15)	Canvas Work (14)	Visit ship/ D.Dock (13)	Cargo & Hatch Work (18)	Grid Beha- viour Hobbies. (3)
Fourth	-do-	-do-	Lifeboat/Fire equipment revision. (20)	-do-	-do-	Boat & Fire Drill (12)

DECK SYLLABUS FOR E.R.TAINEES.

FIFTH MONTH

EIGHTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Knots, Bends & Hitches (3)	Knots, Bends & Hitches (4)	Rope Splice (4)	Washing (1)	Lifeboat/ Raft equipment. (17)	P.T., Drill (1)
Second	-do-	-do-	-do-	English (2)	-do-	English (2)
Third	Ship Main- tenance Overhaul Blocks, Toilets (25)	Ship Main- tenance Holds, Bilges (25)	Ship Main- tenance Oiling, Greasing Davits (25)	Lead Line (19)	Ship Main- tenance Toilets, Wash places (25)	Accident Prevention (24)
Fourth	-do-	-do-	-do-	Lead, Log, P.S. Mach (5)	-do-	Boat & Fire Drill (12)

DECK SYLLABUS FOR E.R. TRAINEES

FIFTH MONTH

NINETEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Rope Splice (4)	Compass, Helm Orders (18)	Lead, Log, P. Sounding M. (5)	Washing (1)	Mooring Hawsers Wires. (6)	
Second	-do-	-do-	-do-	English (2)	-do-	Second Saturday Holiday Make and Mend
Third	Ship Main- tenance Stage, Bosun's Paint work Chair (25)	Ship Main- tenance Canvas Screen. (25)	Ship Main- tenance Canvas Screen. (25)	Ship Main- tenance Fire Gear (25)	Light, Fog Sig- nals (21)	
Fourth	-do-	-do-	-do-	-do-	Boat & Fire Drill (12)	

DECK SYLLABUS FOR E.R. TRAINEES

FIFTH MONTH

TWENTYFIFTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Anchor Work (7)	Cargo Work (20)	Hatch & Derrick Work (8)	Washing (1)	Wire Work (9)	C/S. Division. Kit Inspection. (1)
Second	-do-	-do-	-do-	English (2)	-do-	English (2)
Third	Ship Main-tenance Tanks, Bilges (25)	Hatch & Derricks (8)	Ship Main-tenance Overseide Pain (25)	Lifboat Launching (14)	Ship Main-tenance L.B.Sails (25)	Seaman's work and d. in port. (22)
Fourth	Rope Hawsers	-do-	-do-	-do-	-do-	Boat & Fire Drill. (12)

DECK SYLLABUS FOR E.R. TRAINEESFIFTH MONTHTWENTYFIRST WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Wire Work (9)	Lights, Fog Signals. (21)	Canvas Work (10)	Washing (1)	Examination (16)	Visit to ship/Dry Deck. (11)
Second	-do-	Lookout duties. (22)	-do-	English (2)	-do-	-do-
Third	Gangway, Pilot Ladder (13)	Gangway, Pilot Ladder (13)	Lifeboat/Raft (17)	Revision (15)	Examination (16)	Seamanship Tankers. (23)
Fourth	-do-	-do-	-do-	-do-	-do-	Boat & Fire Drill (12)

DECK SYLLABUSSIXTH MONTHTWENTYSECOND WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Tank Clean- ing (37)	Ship Main- tenance Windlass, Davits, Winches. (37)	Ship Main- tenance L. Boat Gear (37)	Washing (1)	Ship Main- tenance Cargo Gear (37)	Man o' Board Evolution Man-ship. (1)
Second	-do-	-do-	-do-	English (4)	-do-	English (4)
Third	Seamanship Derrick work & Handling (16)	L. Boat Pulling Compass & Helm Orders (17)	Compass & Helm Orders (29)	Knots, Splices (18)	L. Boat & Fire Gear (30)	First Aid (2)
Fourth	-do-	-do-	Lead, Log, P. Sounding Mach. (27)	-do-	-do-	Beat & Fire Drill (26)

DECK SYLLABUSSIXTH MONTHTWENTYTHIRD WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Chipping, Painting (37)	Ship Main- tenance Holds & Bilges (37)	Ship Main- tenance Overside Painting (37)	Washing (1)	Ship Main- tenance Galleys, Funnels (37)	
Second	-do-	-do-	-do-	English (4)	-do-	Second Saturday Holiday Make & Mend
Third	Life Saving Appliances, Breeches Buoys (31)	Seamanship Tankers (32)	Long Sea Voyage. Crews work (33)	Wire Splice (19)	Lookout Bridge duties (34)	
Fourth	-do-	Safety Tankers (32)	-do-	-do-	Boat & Fire Drill (26)	



DECK SYLLABUS

SIXTH MONTH

TWENTYFOURTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Ship Main- tenance Chain Locker (37)	Ship Main- tenance Chipping & Painting (37)	Ship Main- tenance Lifeboat (37)	Washing (1)	Ship Main- tenance Masts & Stays (37)	C/S.Division (1)
Second	-do-	-do-	-do-	English (4)	Hobbies, Welfare (11)	English (4)
Third	Anchor & Meering work (20)	Survival at sea (9)	Gangway/P. Ladder. (21)	Canvas Work (23)	Cargo Work (22)	Safety D's & Don'ts. (35)
Fourth	-do-	-do-	Dry dock Paints (36)	-do-	-do-	Boat & Fire Drill (26)

DECK SYLLABUSSIXTH MONTHTWENTYFIFTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Revision (25)	Examination (28)	Examination (28)	Washing (1)	E. Room work and duties - Revision. (25)	Health & Hygiene (3)
Second	-do-	-do-	-do-	English (4)	-do-	English (4)
Third	-do-	-do-	Visit ship/ Dock (24)	L. Boat/Raft Distress Signals. (30)	Examination (28)	Accident Prevention (35)
Fourth	-do-	-do-	-do-	Fire Fighting equipment (32)	-do-	Boat & Fire Drill. (26)

DECK SYLLABUSSIXTH MONTHTWENTYSIXTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Shipping Office Articles of Agreement (5)	Disciplinary Committee Cases (7)	Police, Customs Port Regs. (10)	Washing (1)	Future Progr. Training (12)	Pass-out Talk by C/S. (14)
Second	-do-	-do-	-do-	Shipping Office C.D.C. (15)	Efficiency Team work (11)	Prize Dis- tribution Parade. (1)
Third	G.P.Manning (6)	M.Navy Second Line of Defence. (13)	Efficiency & Team work (11)	-do-	Health and Hygiene (3)	-
Fourth	-do-	-do-	Food at Sea (8)	-do-	Personal Safety. (11)	-

ENGINE ROOM SYLLABUSFIRST MONTHFIRST WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Enrolment formalities and Documentation (1)	Uniform issue/ Medical exam. (1)	Division of Trainees for Deck and E.R. Depts. (2)	Washing clothes (8)	Vaccination & Inoculation (1)	Health & Hygiene (4)
Second	-Contd.-	-Contd.-	Allocating numbers, Watches, etc. (2)	Talk by Capt. Supdt. Ex. & Eng. Officers (1)	Routine and Standing Orders. (2)	English (7)
Third	-Contd.- (1)	-Contd.- (1)	Uniform issue & Kit Marking (1)	Tour of ship Family Liaison (2)	Discipline, Rules, Aims & Objectives (3)	Emergency Evolutions (6)
Fourth	Prepare Trainees for immediate requirements. (2)	-Contd.- (1)	-Contd.- (1)	-Contd.- (2)	-Contd.- (3)	Muster List (6)

ENGINE ROOM SYLLABUS

FIRST MONTH

SECOND WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Need for Discipline & Good Behaviour & Don'ts. (3)	Emergency Signals. (2)	Parts of ship and Types of ships. (5)	Washing clothes (8)	Tour of machinery & Boiler spaces. (8)	
Second	Important parts of ship. (Notes) (2)	Putting on Life Jackets (6)	Personal Safety & Fire Prevention (5)	English (7)	-Contd.- (8)	Second Saturday Holiday Make & Mend. (8)
Third	Organisation (4)	Bells & Watches. (12)	Duty keeping on Bhadra. (5)	Revision (15)	Maint. Work-Cleaning Paint work (16)	
Fourth	-Contd.- (4)	Basic Work of Deck & E.R. Crew (4)	Community Living (3)	Solving difficulties. (15)	Boat & Fire Drill (6)	

ENGINE ROOM SYLLABUS

FIRST MONTH

THIRD WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Location of Water & Oil Tanks & Bilges (9)	E.R. Tools & Stores (10)	Life Boat Pulling (11)	Washing Clothes (8)	Life Boat Pulling (11)	C/S. Division & Inspection (8)
Second	Notes on Tour of Mach. Spaces, etc. (13)	-Contd.- (10)	-Contd.- (11)	English (7)	-Contd.- (11)	English (7)
Third	Maint. Work Machinery Parts. (16)	Maint. Work Boiler-room & Galleys. (16)	Maint. Work Tank Tops & Bilges. (16)	Maint. Work Bright work. (16)	Maint. Work Boiler Furnaces. (16)	Maint. Work Brass work. (16)
Fourth	-Contd.- (16)	-Contd.- (16)	-Contd.- (16)	-Contd.- (16)	-Contd.- (16)	Boat & Fire Drill. (6)

ENGINE ROOM SYLLABUSFIRST MONTHFOURTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Life Boat Pulling (11)	Fire Fighting equipment (14)	Life Boat Pulling (11)	Washing clothes (8)	Revision (15)	P.T. & Drill. (8)
Second	-Contd.- (11)	-Contd.- (14)	-Contd.- (11)	English (7)	Solving difficulties. (15)	English (7)
Third	Maint.Work Boiler Tubes (16)	Maint.Work Galleys & Brightwork (16)	Maint.Work Floor plates & Brightwork (16)	Maint.Work Washing paint work (16)	Maint.Work Cleaning Machinery (16)	Maint.Work Brasswork (16)
Fourth	-Contd.- (16)	-Contd.- (16)	-Contd.- (16)	-Contd.- (16)	-Contd.- (16)	Boat & Fire Drill. (6)

NOTE:

- (1) Number in Brackets indicates subject as stated in detailed syllabus.  
(2) Combined Classes for Deck & E.R. Trainees for first 10 days.

ENGINE ROOM SYLLABUSSECOND MONTHFIFTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Fire Fighting equipment (9)	Fire Drill Parties 'Bhadra' (9)	Fire Fighting Gear (Location & Uses). (4)	Washing clothes (1)	Fire Fighting Gear (Maintenance of). (4)	P.T. & Drill (1)
Second	Fire Fighting methods. (9)	Remote Controls & Escape methods (9)	-Contd.-	English (2)	-Contd.-	English (2)
Third	Maint. work Boiler parts (15)	Maint. work Bilges & Galleys (15)	Maint. work Scaling & Painting (15)	Maint. work Machinery parts (15)	Maint. work underwater parts. (15)	Maint. work Brass work (14)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill. (3)



ENGINE ROOM SYLLABUSSECOND MONTHSIXTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Scotch Boiler, Construction. (10)	Boiler Mountings. (10)	Boilerman's duties (10)	Washing clothes (1)	Oil Fuel system (for boilers) (11)	
Second	Water Tube Boiler, construction (10)	-Contd.- (10)	Accident prevention on boilers. (10)	English (2)	-Contd.- (11)	Second Saturday Holiday Make & Mend.
Third	1) Maint. work paintwork (15) 2) Boiler Practice. (5)	1) Maint. work Brass work & Galleys. (15) 2) Boiler Practice (5)	1) Maint. work Floor Plates & Ladders. (15) 2) Boiler Valves (5)	1) Maint. work under water Parts. (15) 2) Boiler Valves. (5)	Revision (13)	
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill. (3)	

ENGINE ROOM SYLLABUSSECOND MONTHSEVENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Oil Fuel system equipment (11)	Working of Main Engine Steam (12)	Path & Steam & Exhaust of Main Engine (12)	Washing clothes (1)	General Revision (13)	C/S.Division & Inspection. (1)
Second	Boilerman's duties & Safety precautions. (11)	Parts of Main Engine steam (12)	Duties of Greaser & Lubrication on M.E. (12)	English (2)	Solving Difficulties. (13)	English (2)
Third	1) Maint.work Tank-tops & Bilges. (15) 2) Boiler valves. (5)	1) Maint.work Galleys & Diesel Roms. (15) 2) Boiler valves. (5)	Visit to ship (7)	1) Maint.work cleaning & Painting (15) 2) Oil Fuel system. (6)	1) Maint.work Floor Flates & Ladders (15) 2) Oil Fuel system (6)	Maint.work Brasswork (15)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill. (3)

ENGINE ROOM SYLLABUS

SECOND MONTH

EIGHTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Turbine Prop. Engine (12)	Turbine Lub. system. (12)	Discussion & solving difficulties (12)	Washing clothes (1)	1)Examinations. (14) 2)Maint.work Idle Machinery. (15)	Kit Inspection & Mananship. (1)
Second	Gears & Astern Turbine system. (12)	Duties on Turbines (12)	-Contd.- (12)	English (2)	-Contd.-	English (2)
Third	1)Maint.work machinery spaces. (15) 2)Oil Fuel Components (6)	1)Maint.work Gallies & Boilers. (15) 2)Oil Fuel Components (6)	1)Maint.work Scaling & Painting. (15) 2)Life Boat Pulling (8)	1)Examinations. (14) 2)Maint.work Tank-tops & Bilges. (15)	1)Maint.work Boiler parts. (15) 2)Life Boat Pulling (8)	Discussion on Exam.'s weak points (13)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill. (3)

NOTES: One Watch, at a time, will be engaged on Normal maintenance work, and one watch on Practical instructions on Boilers and Machinery, alternately.

ENGINE ROOM SYLLABUS

THIRD MONTH

NINTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work Tank-tops Bilges. (28) 2) Overhauling M.E. Parts. (5)	1) Maint. work Tank-tops & Bilges. (28) 2) Overhauling M.E. Parts. (5)	1) Maint. work Washing and Paint work (28) 2) Overhauling M.E. Parts. (5)	Washing (1)	1) Maint. work Polishing Brightwork (28) 2) Overhauling M.E. Parts. (5)	Captain Superin- tendent's Inspection. (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	-Contd.-	English (2)
Third	Functions of a 4-Stroke Diesel Prop. Engine. (14)	Functions of a 2-Stroke Diesel Prop. Engine. (14)	Principles of small Petrol & Diesel Engines. (14)	Fuel & Cooling systems for Diesel Engines. (14)	Lubricating System for Diesel Engines. (14)	First Aid (3)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Watchkeeper's duties on Diesel Engines. (14)	Boat & Fire Drill (4)

ENGINE ROOM SYLLABUS

THIRD MONTH

TENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work Boiler Cleaning (28) 2) M.E. Parts (5)	1) Maint. work Boiler room Paint work (28) 2) M.E. Parts (5)	1) Maint. work Tank-tops & Bilges. (23) 2) M.E. Parts (5)	Washing (1)	1) Maint. work Polishing Bright work. (28) 2) M.E. Parts (5)	
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	-Contd.-	Second Saturday Holiday Make & Mend. (1)
Third	Fire Fight- ing equip- ment (Tankers) (15)	Explosions & Fire Pre- vention. (16)	Marine Boilers (Discussion) (17)	Steam Rec- pro Engines (Discussions) (19)	General Revision (27)	
Fourth	Fire Fight- ing Methods (Tankers) (15)	Usual Do's & Dont's. (16)	Boiler Oil Fuel system (Discussion) (18)	Steam Turbine Engines (Discussion) (19)	Boat & Fire Drill (4)	

ENGINE ROOM SYLLABUS

THIRD MONTH

ELEVENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work Machinery Parts. (28) 2) Diesel Gen. Parts (Fitting) (6)	1) Maint. work Tanks & Bilges. (28) 2) Diesel Gen. Parts (Fitting) (6)	1) Maint. work Tanks & Bilges (28) 2) Diesel Gen. Parts (Fitting) (6)	Washing (1)	Raising Steam P.T. & Drill on Boiler by Hand Pump (11)	(1)
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	Change to Pressure Pump, Commission Aux. Mach. (11)	English (2)
Third	4-Stroke Diesel Engines. (Discussions) (20)	Lay-out of Aux. Mach. on 'Bhadra'. (21)	Visit to ship/Dry Dock. (7)	Lub. System of Aux. Mach. (21)	Demonstration Life Boat on Boiler & Handling. Aux. Mach. (11)	(10)
Fourth	2-Stroke Diesel Engines. (Discussions) (20)	Common Types of Aux. Mach. (21)	-Contd.-	Duties on Aux. Mach. (21)	-Contd.-	Boat & Fire Drill. (4)

# ENGINE ROOM SYLLABUS

## THIRD MONTH

## TWENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work Boiler rooms. (28) 2) Diesel Gen- erator parts. (Fitting) (6)	1) Maint. work Engine room. (28) 2) Steam Gen. parts (Fitting) (9)	1) Maint. work Tank-tops & Bilges. (28) 2) Steam Gen. parts (Fitting) (9)	Washing (1) ( )	1) Maint. work Brightwork (28) 2) Evap. & Evap. Pump parts (Fitting) (9)	Manship & Kit Ins- pection. (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	-Contd.-	English (2)
Third	Simple Prin- ciples of Electricity & Circuits (22)	Distribu- tion of Electric Circuits. (22)	Visit to D.M.E.T. (8)	Types & Functions of Deck Mech. (23)	Use of Tools Stores & Oils (13)	Life Boat Handling (10)
Fourth	-Contd.-	-Contd.-	-Contd.-	Lub. System & duties on Deck Mach.	-Contd.-	Boat & Fire Drill. (4)

## ENGINE ROOM SYLLABUS

## THIRD MONTH

## THIRTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work Tanks cleaning. (28) 2) Evap. & Pump parts. (Fitting) (9)	1) Maint. work Tank cleaning. (28) 2) G.S. & Circ. Pump parts (Fitting) (9)	1) Maint. work Boiler Tops & Furnaces. (28) 2) G.S. & Circ. Pump parts (Fitting) (9)	Washing (1)	1) Maint. work Paintwork & Brasswork (28) 2) Fuel Pump & Fan Engine Parts (Fitting) (9)	Captain Superintendent's Inspections. (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	-Contd.-	English (2)
Third	Cleanliness in Mach. & Blr. compartments. (Emphasis) (24)	Reading of Thermometer & Pressure Gauges (Emphasis) (25)	Slinging Machinery parts Practice (12)	1) Maint. work underwater parts. (28) 2) Feed Pump & Fan Engine parts. (Fitting) (9)	Slinging Machinery parts. (12)	General Revision (27)
Fourth	Important aspects on Watchkeeping. (24)	Good Behaviour & work attitude. (27)	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill. (4)

NOTE: One Watch, at a time, will be engaged on normal maintenance work, and  
One Watch on practical instructions on Boilers and Machinery, alternately.



ENGINE ROOM SYLLABUS

FOURTH MONTH

FOURTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Maint.work underwater parts of Hull. (14)	Maint.work Idle Machi- nery. (14)	Maint.work Scaling & Painting in E.R. (14)	Washing clothes (1)	Maint.work Scaling and Painting in E.R. (14)	P.T. & Drill. (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (3)	-Contd.-	English (3)
Third	1) Maint.work Contd. (14) 2) First Aid and Hygiene. (2)	1) Maint.work Contd. & Galley Funnels. (14) 2) First Aid Hygiene (2)	1) Maint.work Contd. (14) 2) Table Manners. (2)	1) Maint.work Tank-tops & Bilges. (14) 2) Table Manners. (2)	Emergency Evolutions & Man O' Board. (4) (14)	1) Maint.work Brass work (14) 2) Life Boat Handling. (5)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat and Fire Drill (4)

ENGINE ROOM SYLLABUS

FOURTH MONTH

FIFTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Maint. work Scaling & Painting Tanks. (14)	Maint. work Scaling & Painting Pumproom. (14)	Maint. work Tank-tops Bilges. (14)	Washing Clothes (1)	Maint. work Polishing Bright work. (14)	
Second	-Contd.-	-Contd.-	-Contd.-	English (3)	-Contd.-	Second Saturday Holiday Make & Mend
Third	1) Maint. work Contd. (14) 2) Deck Mach. parts. (6)	1) Maint. work Contd. & Galley Funnels. (14) 2) Deck Mach. parts. (6)	1) Maint. work Contd. (14) 2) Deck Mach. parts. (6)	1) Maint. work Boiler Room. (14) 2) Deck Mach. parts. (6)	1) Maint. work Bright work. (14) 2) Life boat Handling (5)	
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat and Fire Drill. (4)	

# ENGINE ROOM SYLLABUS

## FOURTH MONTH

## SIXTEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Maint.work Diesel Gen. & Pump rooms	Oil Fuel Flashing up Competition.	Slingsing Mach. Parts Competi- tion.	Washing clothes	Raising Steam on Boiler by Hand Pump	Captain Superinten- dent's Divi- sions & Inspections.
	(14)	(7)	(8)	(1)	(9)	(1)
Second	-Contd.-	-Contd.-	-Contd.-	English	Change to Press. Pump, Commission Aux.Mach.	English (3)
Third	Revision of E.R.Aux. Mach. (11)	1) Maint.work Galley Funnels. (14) 2) Life Boat Handling. (5)	Life Boat Handling Comp.Practice (5)	Revision of Deck Machi- nery. (11)	Demonstra- tion on Boiler & Aux. Mach. (9)	1) Maint.work Brasswork (14) 2) Life Boat Handling (5)
Fourth	-Contd.-	-Contd.-	-Contd.-	Life Boat Handling Competition. (5)	-Contd.- (9)	Boat & Fire Stations. (4)

<u>ENGINE ROOM SYLLABUS</u>		<u>FOURTH MONTH</u>		<u>SEVENTEENTH WEEK</u>		
Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Maint.work Cleaning Boiler Tubes & Furnaces. (14)	Revision on Fire Fight- ing equip- ment. (13)	Maint.work Tank-tops Paintwork. (14)	Washing clothes. (1)	Maint.work Idle Machi- nery parts. (14)	Kit Ins- pection & Manship. (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (3)	-Contd.-	English (3)
Third	Revision of Marine Boilers. (12)	Maint.work Galley Funnels & Bilge Spaces. (14)	Revision of Steam Prop. Engines. (12)	Visit to ship/Dry Dock. (10)	Revision of Diesel Prop. Engines. (13)	Revision of Oil Fuel System, (Boiler) (12)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat and Fire Stations. (4)

NOTE: † One Watch, at a time, will be engaged on normal maintenance work, and one watch on practical or Theoretical Instructions, alternately.

E. R. SYLLABUS FOR DECK TRAINEES

FIFTY MONTH

EIGHTEEN WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work (25) 2) Fitting on Blr. valves (6)	1) Maint. work (25) 2) Fitting on Blr. valves (6)	1) Maint. work (25) 2) Oil Fuel Com. (Fitting) (7)	Washing Clothes (1)	1) Maint. work (25) 2) Oil Fuel Comp. (Fitting) (7)	P. T. Drill (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	-Contd.-	English (2)
Third	Tour of Mach. & Blr. spaces (4)	E. R. Tools & Stores uses. (5)	Marine Boiler (13)	Marine Boilers. (13)	Oil Fuel System (Boilers) (14)	Revision (23)
Fourth	Functions of the Machinery (4)	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill (3)

E.R. SYLLABUS FOR DECK TRAINEES

FIFTH MONTH

NINETEENTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work (25) 2) Fitting on Aux. Mach. (8)	1) Maint. work (25) 2) Fitting on Aux. Mach. (8)	1) Maint. work (25) 2) Fitting on Aux. Mach. (8)	Washing Clothes (1)	1) Maint. work (25) 2) Fitting on Aux. Mach. (8)	
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	-Contd.-	Second Saturday Holiday Make & Mend.
Third	Oil Fuel System, (Boiler) (14)	St. Recipro. Prop. Engines (15)	Steam Turbine Prop. Engines (15)	Diesel Prop. Engines. (16)	General Revision (23)	
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill. (3)	

E.R. SYLLABUS FOR DECK TRAINEES

FIFTH MONTH

TWENTIETH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work (25) 2) Fitting on M.E. Parts (9)	1) Maint. work (25) 2) Fitting on M.E. Parts (9)	1) Maint. work (25) 2) Fitting on M.E. Parts (9)	Washing Clothes (1)	Storm to be raised on Boiler (11)	Captain Superintendent's Inspection. (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	Demonstration of Blr. & Aux. Mach. (Steaming) (11)	English (2)
Third	Diesel Fuel, Cooling & Lub Systems. (16)	Aux. Machinery (17)	Aux. Machinery (17)	Safety Precautions & Fire Prevention. (18)	-Contd.-	General Revision. (23)
Fourth	Contd.-	-Contd.-	Contd.-	Important Do's & Don'ts (18)	-Contd.-	Boat & Fire Drill. (3)

# E.R. SYLLABUS FOR DECK TRAINEES

## FIFTH MONTH

## TWENTYFIRST WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	1) Maint. work (25) 2) Fitting on M.E. Parts (9)	1) Maint. work (25) 2) Fitting on Deck Mach. (10)	1) Maint. work (25) 2) Fitting on Deck Mach. (10)	Washing Clothes (1)	1) Maint. work (25) 2) Examination. (24)	Visit to ship/Dry Dock. (12)
Second	-Contd.-	-Contd.-	-Contd.-	English (2)	-Contd.-	-Contd.-
Third	Reading of Press. Gauges & Thermometers (19)	Common Deck Machinery (20)	Cleanliness in Mach. & Blr. Comp. (21)	Solving Difficulties (23)	-Contd.-	Fire Fighting Methods on Tankers. (22)
Fourth	Important aspects of Watchkeeping (19)	-Contd.-	Good Behaviour & work attitude (21)	-Contd.-	-Contd.-	Boat & Fire Drill. (3)

NOTE: One Watch, at a time, will be engaged on Normal Maintenance Work, and One Watch on Practical Instructions on the Boilers & Machinery, alternately.



ENGINE ROOM SYLLABUSSIXTH MONTHTWENTYSECOND WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Practice on Boiler Valves. (18)	Practice on Oil Fuel Components. (19)	Practice on Aux. Machinery (20)	Washing Clothes (1)	Stowage of E.R. Tools & Stores. (21)	Man O'Board Evolution and ManShip (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (4)	-Contd.-	English (4)
Third	Maint. work Tank Tops & Bilges. (33)	Maint. work Galley & Boiler Rooms (33)	Maint. work Scaling & Oiling (33)	Maint. work Paint work (33)	Maint. work Polishing Bright work (33)	First Aid (2)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill (16)

ENGINE ROOM SYLLABUS

SIXTH MONTH

TWENTYTHIRD WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Practice on Main Steam Engine. (22)	Fire Fighting equipment & Methods. (24)	Duties on Marine Boilers (Emphasis) (25)	Washing Clothes (1)	Duties on Steam Prop. Engines (Emphasis) (26)	
Second	-Contd.-	-Contd.-	-Contd.-	English (4)	-Contd.-	Second Saturday Holiday Make & Mend.
Third	Maint. work Idle Machinery. (33)	Maint. work Galleys & Pump room (33)	Maint. work Boiler rooms (33)	Maint. work Tank-tops & Bilges. (33)	Maint. work Polishing Brasswork. (33)	
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill. (16)	

ENGINE ROOM SYLLABUSSIXTH MONTHTWENTYFOURTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Duties on Diesel Prop. Engines (Emphasis) (27)	Duties on Aux. Machinery. (Emphasis) (28)	Life boat Handling (23)	Washing clothes (1)	Hobbies & Welfare (11)	C/S. Inspections (1)
Second	-Contd.-	-Contd.-	-Contd.-	English (4)	Approach to problems & Pride in the Profession. (30)	English (4)
Third	Maint. work Pumproom & Diesel Engine Rooms. (33)	Survival at Sea. (9)	Maint. work Boiler Tubes & Furnaces. (33)	Maint. work Idle Machinery (33)	Maint. work Paint work & Brightwork (33)	Maint. work Brasswork (33)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill (16)

ENGINE ROOM SYLLABUSSIXTH MONTHTWENTYFIFTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Revision & Solving Difficult- ies (31)	Examina- tions (32)	Examina- tions (32)	Washing Clothes (1)	Deck work & Duties & Revision (31)	Health & Hygiene (3)
Second	-Contd.-	-Contd.-	-Contd.-	English (4)	-Contd.-	English (4)
Third	-Contd.-	-Contd.-	-Contd.-	Visit to Ship/Dock (17)	Examina- tions (32)	Safety precau- tions, DO's & DON'Ts (29)
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Boat & Fire Drill (16)

ENGINE ROOM SYLLABUSSIXTH MONTHTWENTYSIXTH WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Articles of Agreement (5)	Disciplinary Committee Cases. (7)	Police, Customs, Port Regulations. (10)	Washing Clothes (1)	Health & Hygiene (3)	Pass-out Talk by C/S. (14)
Second	-Contd.-	-Contd.-	-Contd.-	Future Progressive Training. (12)	C.D.C. Formalities, Shipping Office. (15)	Prize Distribution Parade. (1)
Third	G.P.Manning (6)	M.N. - 2nd Line of Defence (13)	Efficiency & Team work (11)	Efficiency & Team work (11)	-Contd.-	
Fourth	-Contd.-	-Contd.-	Food at sea (8)	Personal Safety (11)	-Contd.-	

EFFICIENT DECK HAND TRAINING COURSE SYLLABUSDURATION OF TRAINING - TWO WEEKSGENERAL

- |  |   |            |
|--|---|------------|
| 1) English   | - | 2 periods. |
| 2) Health & Hygiene  | - | 1 period.  |
| 3) G.P.Manning Scheme, Important Features, Duties and Work of G.P.Crew | - | 1 period.  |
| 4) Discipline and Good Behaviour                                       | - | 1 period.  |
| 5) Introductory and Pass-Out Talk by Captain Superintendent.           | - | 2 periods. |

PRACTICAL:

- |   |   |            |
|---|---|------------|
| 6) Fire Fighting Equipment its use, Care and Maintenance.   | - | 1 period.  |
| 7) Hand Lead: Coiling Line, Taking Cast, Reporting Sounding.  | - | 1 period.  |
| 8) Life Saving Appliances : Use and Maintenance.  | - | 1 period.  |
| 9) Patent Sounding Machine: To rig and take a cast.   | - | 2 periods. |
| 10) Hatch Work: Safe Handling of Hatch Covers, Battening Down and Securing.   | - | 2 periods. |
| 11) Cargo Work: Knowledge of Cargo Gear and its Uses, Ventilation and Dunnage, Overhauling Derrick Gear.                  | - | 2 periods. |
| 12) Knots, Bends & Hatches.   | - | 3 periods. |
| 13) Patent Log: Reading, Streaming and Hauling.   | - | 1 period.  |
| 14) Derrick Work: Rigging, Topping, Lowering, Slings Cargo, Securing for Sea, Operating Winches.                          | - | 2 periods. |
| 15) Life-Boat : Stations, Clearaway, Launching, Rigging Sails, Management of Life-Boat under Sails and During Bad Weather | - | 4 periods. |

PRACTICAL (CONTD.)

- 16) Rope Splice : Eye, Short, Long and Back - 2 periods.
- 17) Anchor Work & Mooring: Putting out  
Mooring Ropes and Hawsers, Use of  
Rope and Chain Stoppers, Dropping  
and Picking up Anchor, Stowage of  
Cable in Chain Locker, Operating  
Windlass. - 3 periods.
- 18) Wire Splice : Eye and Cut Splices. - 2 periods.
- 19) Slings Stage, Rigging Bosun's Chair,  
Reeving Tackles. - 1 period.
- 20) Emergency Signals, Boat & Fire Drill - 1 period.

THEORETICAL :

- 21) Nautical Terms, Parts of Ship - 1 period.
- 22) Mariner's Compass, Construction, Points,  
Reporting Relative Bearings, Helm  
Orders. - 2 periods.
- 23) Hand Lead Markings. - 1 period.
- 24) Fire Fighting : Usual Causes of Fire,  
Types of Fire, Three Main Ways of  
Putting Out Fire - Cooling,  
Smothering and Starving. - 1 period.
- 25) Safety and Accident Prevention : Usual  
Cases of Accidents resulting in  
personal injury, preventive  
measures, Safety of Ship and Cargo. - 2 periods.
- 26) Lock Out, Stand By and General Duties - 1 period.
- 27) Life Boat/Raft Equipment, Emphasis  
on correct use. - 1 period.

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ANNEXURE XII

CERTIFICATE OF EFFICIENCY AS LIFEBOATMAN

SYLLABUS - DURATION OF TRAINING - ONE WEEK.

THEORETICAL:

1. Introductory Talk, Classification, Construction, Important Parts, Marking and Numbering of Lifeboat. 2 periods.
2. Lifeboat Equipment, Use and Stowage in details 2 periods.
3. Knowledge of Construction, Use and Points of Lifeboat Compass. 2 periods.
4. Lifeboat Sail Parts and Sailing Terms. 1 period.
5. Types of Davits, Correct use of Distress Signals. 1 period.
6. Motor Lifeboat, Liferaft Stowage. Equipment and its use. 1 period.
7. Question and Answers, General Revision. 1 period.

PRACTICAL:

8. Lifeboat Drill, Stations, Clearaway, Swinging out and Lower away and Getting away from Ships Side. 4 periods.
9. Boatpulling, Boat Manouvering, Coming Alongside, Use of Sea anchor, Picking up Man Overboard. 4 periods.
10. Rig and Set Sails, Reefing Sails, Understanding Sailing Orders. 2 periods.
11. Examination. 4 periods.



# CERTIFICATE OF EFFICIENCY AS LIFEBOATMAN

## SYLLABUS - ONE WEEK TRAINING COURSE

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Introductory Talk. Clear- away, Swing out and Launching Drill	Clear-away, Swing-out & Launching Drill. Boat Pulling and Manouvering under Oars.	Clearaway, Swing -out and Launch- ing Drill. Boat Pulling and Manouvering under Oars.	Clearaway, Swing out and Launch- ing Drill. Boat Pulling and Manou- vering under Oars.	Clearaway, Swing out and Launch- ing Drill. Boat Pulling and Manou- vering under Oars.	examination
Second	Getting away from Ships Side and Boat Pulling.	-do-	-do-	Big Sails & Handling under sails.	Big Sails and Handling under Sails. Use of Sea Anchor.	-do-
Third	Classification, Construction and Important Parts of Lifeboat.	Lifeboat Equipment Use and Stowage.	Lifeboat Equip- ment Use and Stowage.	Types of Davits, Distress Signals, Correct use of Boat equipment.	General Revision, Question and Answers.	-do-
Fourth	-do-	Lifeboat Compass, Use, Construction and points of compass	Lifeboat sails Sailing Terms.	Fixing Compass	Motor Life- boat, Life- rafts, stowage. Equipment and its use	-do-

# EFFICIENT DECK HAND TRAINING COURSE

## SYLLABUS - FIRST WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Introductory Talk Aims & Objectives of the Course	Hand Lead Markings	Patent Sounding Machine, Rig and Take Cast	Knots, Bends and Hitches	Knots, Bends and Hitches	English
Second	Nautical Terms & Parts of ship.	Hand Lead Taking Cast and Report- ing Soundings	-do-	-do-	Safety and Accident Prevention	G.P. Manning Scheme
Third	Mariner's Compass	Life Saving Appliances use and Maintenance	Hatchwork Opening, Battening Securing	Patent Log Reading, Streaming & Hauling	Derrick Work	-
Fourth	Fire Fight- ing equipment	Boxing Com- pass, Report- ing Relative Bearings, Alarm Orders.	Cargo work	Fire Fightings	-do-	-

# EFFICIENT DECK HAND TRAINING COURSE

## SYLLABUS - SECOND WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Life-Boat Swinging out & Launching	Life-boat Handling	Anchor work and Mooring	Anchor work and Mooring	Derrick work Hatch work, and Cargo work	Discipline and Good Behaviour
Second	Life-Boat Handling and sailing	Rigging sails and Sailing	-do-	Look-out Standby, and General Duties	Slinging stage rigging Bosun's Chair and reeving tackles.	Revision, Talk by Captain Superinten- dent.
Third	Rope Splice	Cargo work	Wire Splice	English	Life-boat Raft, Equip- ment Motor Life-boat & Use of Dis- tress Signals.	-
Fourth	-do-	Health & Hygiene	-do-	Safety Precautions & Accident Prevention	Emergency Signals Boat & Fire Drill.	-

EFFICIENT ENGINE ROOM RATING TRAINING COURSE:  
SYLLABUS - DURATION OF TRAINING - TWO WEEKS.

GENERAL

1. Introductory Talk on the general aspects of this course by the Captain Superintendent and Engineer Officer. - 1 period.
2. Working Knowledge of English - 6 periods.
3. General Purpose Manning - Explanation of Important Features, Duties and Work of a General Purpose Crew. - 1 period.
4. Good Behaviour Pattern, Discipline & work Attitude. - 1 period.
5. Passing Out Talk by the Captain Superintendent - 1 period.

PRACTICAL E.R. PRACTICE:

6. Fire Fighting Methods & Equipment:  
Practice on the use of Fire Fighting Equipment, such as, Fire Hoses, Fog, Spray & Jet Nozzles, Portable Fire Extinguishers, (Foam, CO2 Gas, Soda Acid, Dry Chemical & C.T.C.), Steam Smothering System and Smoke Helmet Gear. Handling Watertight Doors and Quick Closing Remote Controls in Machinery Spaces. - 3 periods.
7. Marine Boilers:  
Practice at Opening up and going through Boiler Furnances for cleaning and inspection. Dismantling and Re-fitting Boiler Mountings. - 4 periods.
8. Oil Fuel System for Boilers:  
Practice at Dismantling, Cleaning, Re-fitting and Changing Burner Nozzles, Filters and Pressure Pump Components. - 2 periods.
9. Steam Auxiliary Machinery:  
Practice at Dismantling, Greasing, and Re-fitting working components on the Steam Generator, Evaporator, Evaporator Pump, Feed Pump, Main Circulating Pump, Oil Purifiers, Coolers, Filters & Mechanical Lubricators. - 2 periods.

(10) Steam Reciprocating Propulsion Engine:

Practice at Opening, Cleaning, Greasing and Re-fitting Components on the Main Engines.

- 2 periods.

(11) Diesel Generator Engine:

A study of the Fuel, Lubricating and Cooling system on the Diesel Engine. Practice at Dismantling, Greasing and Re-fitting the Working Components.

- 4 periods.

(12) Slinging Machinery Parts:

Practice on Slinging, Hoisting, Lowering and Shifting Heavy Machinery Parts with help of Chain & Rope Blocks. Correct Methods of Fastening Slings, Eye-bolts shackles, etc.

- 2 periods.

(13) E.R. Tools, Stores & Paints:

Names, sizes and uses of Common E.R. Tools & stores. Mixing of Paints and uses of different types for use in the Machinery spaces.

- 4 periods.

THEORETICAL E.R. PRACTICE:

(14) Marine Boilers & Oil Fuel System :

Emphasis on Watch-Keeping Duties. Reading of Thermometers and Pressure Gauges. Working of an Exhaust Boiler. Functions of and Care in Handling Boiler Mountings. Importance of Maintaining Correct Fuel Oil Pressure and Temperature and Air Pressure for Efficient Combustion. Working of Forced Draught Systems. Stress on Cleanliness, Safety Precautions and Fire Prevention in the Boiler-room.

- 2 periods.

(15) Marine Steam Engines :

Functions of the Steam Reciprocating and Turbine Propulsion Engines. Methods of Lubrication of the Working Components. Stress on Watch-Keeping Duties in Port and at Sea.

2 periods.

(16) Marine Diesel Engines:

Functions of Diesel Machinery with working of the Fuel, Lubricating and Cooling Systems. Stress on Watch-Keeping Duties and Safety Precautions.

- 2 periods.

(17) Duties of Watch-keepers :

Emphasis on Watch-keeping Duties on the Boilers and Machinery at Sea and in Port on Steam and Motor vessels. Developing a keen sense of smell, touch and hearing for detection of any unusual heat, odour or sound from the running machinery.

- 2 perios.

(18) Safety Precautions :

Important aspects of Fire Prevention and Accidents, with Safety Precautions on board ships. Important DO's and DON'Ts.

- 2 periods.

(19) General Revision

- 1 period.



SYLLABUS FOR EFFICIENT ENGINE ROOM EATING  
(GREASEERS - MOTOR-LEN - WINCHMEN - DONKEYMEN)  
TWO WEEKS' COURSE.

.....

FIRST WEEK.

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Introductory Talk by C/S. & E/O. (1)	Marine Boilers (14)	English (2)	Safety Pre- cautions & Fire Precau- tion. (18)	Oil Fuel System for Boilers (8)	English (2)
Second	Fire Fighting equipment (6)	Oil Fuel System for Boiler. (14)	English (2)	Important DO's & DON'TS. (18)	-Contd.-	English (2)
Third	Fire Fighting methods (6)	Marine Boilers (7)	Marine Boilers (7)	Slinging Machinery parts (12)	Steam Aux- iliary Machinery (9)	-
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-Contd.-	-

SECOND WEEK.

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
First	Diesel Machinery (11)	English (2)	Marine Diesel Engines. (16)	Marine Steam Engines (15)	Duties of Watchkeepers (17)	General Revision (19)
Second	-Contd.-	English (2)	-Contd.-	-Contd.-	-Contd.-	Passing out Talk by C/S. (5)
Third	E.R.Tools & Stores (13)	Diesel Machinery (11)	E.R.Tools & Stores (13)	Steam Propulsion Engine (10)	Good Behaviour & Discipline. (3)	-
Fourth	-Contd.-	-Contd.-	-Contd.-	-Contd.-	Aspects of G.P.Manning. (4)	-



CURRICULUM FOR GENERAL PURPOSE MANNING TRAINING SCHEME

- I DURATION OF TRAINING - THREE WEEKS
- II ACADEMIC DAY - The academic day for the General Purpose Manning Training Scheme shall consist of 4 periods, from Monday to Saturday (except 2nd Saturday of the Month), unless otherwise designated due to special circumstances.
- III Daily Routine
- |             |   |
|-------------|---|
| 0900 - 0910 | Morning Assembly                            |
| 0915 - 1035 | 1st Period : Theoretical/Practical Classes. |
| 1035 - 1045 | Break                                       |
| 1045 - 1200 | 2nd Period. Theoretical/Practical Classes.  |
| 1200 - 1300 | Lunch Break                                 |
| 1300 - 1500 | 3rd Period. Practical Classes               |
| 1500 - 1510 | Break                                       |
| 1510 - 1600 | 4th Period. Practical                       |
| 1610 - 1645 | Evening Activities & Games                  |
| 1650 -      | Leave for 'Nabik Griha'                     |
- IV. Minor adjustments may be made to suit any particular needs of Individual Shipping Company.

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THEORETICAL SEAMENSHIP TRAINING FOR ENGINE ROOM CREW & SALOON CREW

AS REQUIRED

<u>1st Week</u>	<u>6 days</u>	<u>- 8 periods</u> <u>No. of Periods.</u>
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1. \* Talk by Captain Superintendent on Aims & Objectives of the General Purpose Manning Training Scheme, need for unreserved co-operation and understanding between Deck, Engine-Room and Saloon Crew members, need for disciplined behaviour while on the 'Bhadra' a broad outline of work and duties required to be performed by Deck, Engine and Saloon Crew under new pattern of manning. 1 period.
2. \* Talk by the Executive Officer and the Engineer Officer on organisation of Shipboard Management team. Work routine of crew members at sea and in port, necessity for seamen to operate with greater flexibility. 1 period.
3. \* Lecture on all aspects of Fire and Boat stations including knowledge & use of Life Saving and Fire Fighting Equipment. 2 periods.
4. Knowledge of Mariner's Compass, Boxing the Compass, understanding of Helm Orders, Lowering and Hoisting International Code Flags, Flag Etiquette. 2 periods.
5. \* Instructions & Practice on Table Manners & Etiquette 1 period.
6. Revision as required 1 period.

\* Combined Class of Deck, Engine and Saloon Crews.

THEORETICAL SEAMANSHIP

2nd Week.

6 Days

- 8 Periods.  
No. of Periods.

1. Care and Stowage of Ropes and wires,  
knowledge of Crew's work while docking,  
undocking, anchoring, entering & leaving  
port, stowages of cable in chain locker,  
marking of cable, safety precautions while  
on stations. 2 periods.
- 2.\* Care, use and maintenance of Life Boat.  
Equipment, Rigging Lifeboat Sails &  
Parts of sails. Use of Inflatable Life-  
rafts. 3 periods.
3. Opening and battening of Hatches, knowledge  
of cargo gear and crew's work during cargo  
handling, trimming of ventilators and safety  
precautions. 2 periods.
4. \* Lecture on Personal Hygiene & First Aid. 1 period.

\* Combined Class for Deck, Engine & Saloon Crews

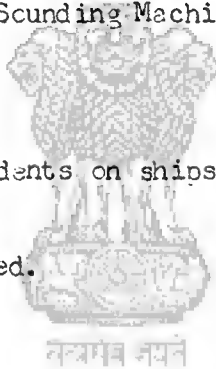
THEORETICAL SEEMANSHIP

3rd Week.

6 Days.

8 Periods.

1. \* Principal Aspects of Tanker Operations,  
duty of Tanker Crew while loading,  
discharging and ballasting with particular  
emphasis on Safety Precautions 1 period.
2. \* Knowledge of Tank Washing and Cleaning  
procedure, use and maintenance of Tank  
Cleaning apparatus, water pollution. 1 period.
3. To read Patent Log, Markings on Hand  
Lead Line, use of Sounding Machine  
(Briefly) 2 periods.
4. Prevention of Accidents on ships 2 periods.
5. Revision as required. 2 periods.



\* Combined Class of Deck, Engine & Saloon Crews.

PRACTICAL SEAManship TRAINING FOR ENGINE-  
ROOM CREW AND SALOON CREW AS REQUIRED

<u>1st week</u>	<u>6 Days</u>	16 Periods. <u>No. of Periods.</u>
1. Measuring Ropes & wires, Whippings and Seizings.		1 period.
2. Knots Bends & Hitches		2 periods
3. Rope Splices including Hawasers		3 periods.
4. Wire Splices		3 periods.
5. Boat Pulling		2 periods.
6. Uncoiling New Ropes and wires, Rigging stages, Bosun's Chair on Mast, Funnel & Stays.		2 periods.
7. Revision		2 periods.
8. Boat & Fire Drill		1 period.



\* Combined Class of Deck, Engine & Saloon Crews

PRACTICAL SEAManship

2nd Week

6 Days

16 Periods.  
No. of Periods.

1. \* Rigging Gangways, Pilot Ladders  
Life Lines etc. 2 periods.
2. Boat Launching, Boat Pulling &  
Handling Lifeboats 2 periods.
3. Locking Stations, use of Heaving  
Line, Fender, Borne & Chain Stoppers,  
Messenger rope, Slip Rope, Handling  
Mooring Hawsers, Bires, Springs,  
Safety Precautions. 3 periods.
- 4.\* Dropping & Heaving up anchor, Hanging  
Off anchor, Securing anchors, Marking  
Cable, Use of Windlass, making fast  
rope & wire Hawsers, Stowing Cable in  
Chain Locker, Handling Cable. 3 periods.
- 5.\* Ship Maintenance, Cleaning Tanks and  
Correct use of Maintenance Gear  
Cleaning Bathrooms and Toilets. 2 periods.
6. Revision as required. 3 periods.
- 7.\* Boat & Fire Stations. 1 period.

\* Combined Class of Deck, engine & Saloon Crew.

PRACTICAL SEAManship

3rd week

6 Days.

16 Periods.  
No. of Periods.

- |   |            |
|---|------------|
| 1.* Opening and Battening Hatches,<br>Rigging Derricks, Guys, use of beam<br>slings, slinging cargo etc.                                  | 3 periods. |
| 2. Overhauling Cargo Blocks, Topping<br>and Lowering Derricks   | 2 periods. |
| 3. Rigging Chains and taking cast by<br>Hand Lead, Streaming & taking in Patent<br>Log, Rigging sounding Machine and taking<br>soundings. | 2 periods. |
| 4. Canvas Works   | 2 periods. |
| 5.* Boat Pulling, Launching Lifeboats &<br>rigging Lifeboat sails   | 3 periods. |
| 6. General Revision   | 3 periods. |
| 7.* Boat & Fire Stations  | 1 period.  |



Combined Class of Deck, Engine & Saloon Crew.

INSTRUCTIONAL ROUTINE FOR DECK & SALOON CREW AS REQUIRED

THEORETICAL COURSE

<u>1st Week</u>	<u>6 Days</u>	<u>8 periods</u> <u>No. of Periods.</u>
1. *	Talk by Captain Superintendent on aims & objectives of the General Purpose Manning Training Scheme, need for unreserved co-operation and understanding between Deck, Engine-room and Saloon Crew Members, need for disciplined behaviour while on the "Bhadra"; a broad outline of work and duties required to be performed by Deck, Engine and Saloon crew under new pattern of manning.	1 period.
2.*	Talk by the Executive Officer and the Engineer Officer on organisation of shipboard management team. Work routine of crew members at sea and in port., necessity for seamen to operate with greater flexibility.	1 period
3.*	Lecture on all aspects of Fire and Boat stations including knowledge and use of Life Saving and Fire Fighting Equipment.	2 periods.
4.	Instructions on Outline Construction and Working of a Water Tube Boiler, with Lay-out of Boilers, Oil Fuel System and Allied Machinery in the Boiler-rooms. Purpose and Function of the Boiler Mountings and the Forced Draught System.	

\* Combined Class of Deck, Engine and Saloon Crews. -128-



Reading of the Pressure Gauges. Importance of  
of maintaining Proper Level of water in the Boiler.  
Procedure for Flashing Up Boiler. Duties of Watch-  
keepers.

2 periods

5.\* Instructions & Practice on Table Manners & Etiquette 1 period.

6. Instructions of General working of Common Deck Machinery,  
such as, Winches, Windlass and Steering Engines. Duties  
of a Greaser and Points of Greasing and Oiling. 1 period.

### THEORETICAL COURSE

#### 2nd Week

#### 6 Days

#### 8 Periods.

1. Instructions regarding General Lay-out of Fuel Oil  
System for Boilers. Path of Oil from Bunker Tanks to  
Burners. Knowledge of working and Purposes of Transfer  
Pumps, Settling Tanks, Heaters, Filters, etc. Reading  
of the Thermometer, Precautions against Fire Hazards  
and Accidents. 2 periods.

2.\* Care, use and maintenance of Life Boat Equipment,  
Rigging Lifeboat Sails and Parts of Sails. Use of  
Inflatable Life-Rafts. 3 periods.

3. Instructions on General Working and Names and Functions  
of Major Components of Marine Steam Turbines (for Main  
propulsion) Outline Arrangement of the Lubrication  
System. Duties of a Watch-Keeper. 2 periods.

\* Combined Class for Deck, Engine and Saloon Crews.

2nd Week (Contd.)                      6 Days                      8 Periods.

- 4.\* Lecture on Personal hygiene and First Aid.                      1 periods.

3rd Week                      6 Days                      8 Periods.

- 1.\* Principal Aspects of Tanker Operations  
duty of Tanker Crew whilst loading,  
discharging and ballasting with particular  
emphasis on Safety Precautions                      1 period.
- 2.\* Knowledge of Tank Washing and Cleaning  
Procedure, use and maintenance of tank  
cleaning apparatus, Water Pollution.                      1 period.
3. Instructions on General Working, Functions  
and Lay-out of Common E.R. Auxiliary  
Machinery, such as, Air Pumps, Condensers,  
General Service Pumps, Feed Pumps, Deck  
Service Pumps, Fresh and Sanitary Water  
Pumps, Evaporators, Distillers, Steam and  
Diesel Generators, Oil Separators and Coolers,  
etc. Duties of watch-keepers and Methods  
of Lubrication on the Working Parts.                      4 periods.
4. Instructions on General Working and Names and  
Functions of Major Components of a Diesel  
Generator. Outline Arrangements for Engine  
Cooling and Lubrication Systems, Duties of a  
Watch Keeper.                      1 period.
5. Revision, as required.                      1 period.

\* Combined Class of Deck, Engine and Saloon Crews.

PRACTICAL COURSE

<u>1st week.</u>	<u>6 Days.</u>	<u>16 Periods.</u>
1.	Names and Functions of Common E.R. Tools and Stores, with Practice of using same	2 periods.
2.	Boat Pulling Practice.	2 periods.
3.	Practice on Opening, Cleaning Overhauling and re-fitting Boiler Valves.	6 periods.
4.	Practice on Cleaning and Changing Burner Nozzles and Bodies on the Boiler Furnace Front. Practice on Opening Cleaning and re-fitting Fuel Filters and Fuel Oil Pressure Pump	4 periods.
5.	Revision, as required.	1 period.
*6.	Boat and Fire Drill.	1 period.

\*Combined Class of Deck, E.R. and Saloon Crews.

PRACTICAL COURSE.

2nd Week

6 Days.

16 Periods.

- 1.\* Practice on Opening, Cleaning, Overhauling and refitting heavy Main Engine Parts on the Steam Reciprocating Engine.  
(Combined Class only for 2 periods) 8 periods.
- 2.\* Practice on Ship Maintenance, Cleaning Tanks and correct use of Maintenance Gear. Cleaning Bathrooms and Toilets 2 periods.
- 3.\* Practice on Flashing Up from Cold the Yarrow Water Tube Boiler and raising Steam. Practice on Working and Lubrication of Common Auxiliary Machinery in the Engine-room Boiler-rooms and on Deck. 4 periods.
4. Boat Pulling and Handling Life-boats Practice. 1 period.
- 5.\* Boat and Fire Drill 1 period.

\* Combined Class of Deck, Engine & Saloon Crews.

PRACTICAL COURSE.

3rd WEEK

6 Days

16 Periods

- |     |   |                |
|-----|---|----------------|
| 1.* | Practice on Opening, Cleaning and re-fitting parts of the Diesel Generator  | ... 2 Periods. |
| 2.  | Practice on Opening, Cleaning, Overhauling and re-fitting parts of the E.R. Auxiliary Machinery, such as, General Service Pump, Steam Generators, Air Pumps, Evaporator Pump and Main Circulating Pump. | ... 8 Periods. |
| 3.  | Practice on Opening, Cleaning Overhauling parts of the Deck Machinery, Such as, the Windlass and Steering Engine.   | ... 2 Periods. |
| 4.* | Practice at Launching Life-Boats, Boat Pulling and Rigging Life Boat sails.   | ... 2 Periods  |
| 5.  | General Revision, as required.  | ... 1 Period.  |
| 6.* | Boat and Fire Drill.  | ... 1 Period.  |

\* Combined Class of Deck, Engine & Saloon Crews.

T.S. "BHADRA"

GENERAL PURPOSE MANNING TRAINING SCHEME FIML TABLE FOR THE ENGINE ROOM CREW AS REQUIRED.

FIRST WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st Period 0915 - 1035	* Talk by Capt. Supdt. Th. (1)	* Lecture on all aspects of Fire & Boat stations. Th. (3)	Boat Pulling Pr. (3)	Compass, Helm Orders Flags. Th. (4)	Revision Th. (6)	Revision Pr. (7)
2nd Period 1045 - 1200	* Talk by X/O & E/O Th. (2)	-do-	-do-	-do-	Wire Splice Pr. (4)	* Table Manners Th. (5)
3rd Period 1300 - 1500	Measuring Ropes Whippings & Seizings Pr. (2)	Knots, Bends & Hitches. Pr. (2)	Rope Splices Pr. (3)	wire Splice Pr. (4)	Rigging Stages, Bosun's Chair. Pr. (6)	Revision Pr. (7)
4th Period 1510 - 1600	Knots, Bends & Hitches. Pr. (2)	Rope Splice Pr. (3)	-do-	-do-	Rigging Stages, Bosun's Chair. Pr. (6)	* Boat & Wire Drill Pr. (8)

## GENERAL PURPOSE MANNING TRAINING SCHEDULE TABLE FOR THE ENGINE ROOM CREW AS REQUIRED

## SECOND WEEK

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st Period 0915 - 1035	Care & Stowage of Ropes, Crews work while docking un- docking & anchoring Th.(1)	* Lifeboat equipment Th.(2)	*Life boat equipment & sails. Th.(2)	Boat Launch- ing & Pull- ing & Hand- ling Life Boats. Pr.(2)	Cargo gear, opening & battening Hatches Th.(3)	Boat Launching Boat Pulling & Handling Life Boats Pr.(2).
2nd Period 1045 - 1200	-do-	Docking Stations, rope & Chain stoppers Handling wires & Hawsers Pr.(3)	-do-	*Ford Stat- ions & Anchor work, use of windlass Pr.(4)	-do-	* Hygiene & First Aid Th.(4)
3rd Period 1300 - 1500	*Digging Gangways, Pilot Ladders. Pr.(1)	-do-	* Ship Maint- enance clean- ing tanks Pr.(5)	-do-	Revision Pr.(6)	Revision Pr.(6)
4th Period 1510 - 1600	-do-	-do-	-do-	-do-	-do-	*Boat & Fire Drill Pr.(7)

GENERAL PURPOSE MANNING TRAINING SCHEDULE FOR THE ENGINE ROOM CASH AS REQUIRED

THIRD WEEK						
Period	Monday	Tuesday	wednesday	Thursday	Friday	Saturday
1st Period 0915 - 1035	*Tanker operations Th.(1)	Hand Lead Line, Patent Log&Use of Sounding Machine Th.(3)	Revision Th.(5)	Prevention of accidents on ship. Th.(4)	Revision Th.(5)	Revision Pr.(6)
2nd Period 1045 - 1200	* Tank washing Th.(2)	-do-	Opening and Battening Down Hatches Pr.(1)	-do-	*boat Pulling. Launching Lifeboat and rigging Lifeboat sails. Pr.(5)	-do-
3rd Period 1300 - 1500	* Digging derricks & Slinging Cargo Pr.(1)	Overhauling Cargo blocks, Topping & Lowering derricks Pr.(2)	Taking case by Hand Lead, Streaming & taking in P.Log. Digging Sounding Machine Pr.(3)	Canvas work Pr.(4)	-do-	-do-
4th Period 1510 - 1600	* -do-	-do-	-do-	-do-	-do-	*Boat & Fire Drill Pr.(7)

\* Denotes Combined Classes of Deck and E.n.Crews.

Th.(No.) Denotes Theoretical Class with corresponding number of the subject in the curriculum

Pr.(No.) Denotes Practical Class with corresponding number of the subject in the curriculum.

1035 - 1045 - Break  
1200 - 1300 - Lunch break  
1500 - 1510 - Break  
1610 - 1645 - Evening  
activities & games



T.S. "BHADRA"

GENERAL PURPOSE TRAINING SCHEDULE TABLE FOR THE DECK CREW.

FIRST WEEK

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st Period 0915 - 1035	* Talk by C/S Th.(1)	* Boat & Fire Stations. Th.(3)	Water Tube Boiler Th.(4)	Practice on Boiler Valves Pr.(3)	Practice on Boiler Fuel oil Fittings. Pr.(4)	Deck Machinery Th.(6)
2nd Period 1045 - 1200	* Talk by X/O & E/O Th. (2)	* Boat & Fire Stations Th.(3)	Water Tube Boiler Th.(4)	Practice on Boiler Valves Pr.(3)	Practice on Boiler Fuel Oil Fittings Pr.(4)	* Table Manners. Th.(5)
3rd Period 1300 - 1500	E.L.L.Stores and Tools Pr.(1)	Boat Pulling Practice Pr.(2)	Practice on Boiler Valves Pr.(3)	Practice on Boiler Valves Pr.(3)	Practice on Boiler Fuel Oil Fittings Pr.(4)	Revision Pr.(5)
4th Period 1510 - 1600	E.L.L.Stores and Tools Pr.(1)	Boat Pulling Practice Pr.(2)	Practice on Boiler Valves Pr.(3)	Practice on Boiler Valves Pr.(3)	Practice on Boiler Fuel Oil Fittings Pr.(4)	* Boat & Fire Drill Pr.(6)

T.S. "BHADRA"

GENERAL PURPOSE MANNING TRAINING SCHEDULE TIME TABLE FOR H.M. DECA GADW.  
SECOND WEEK

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st Period 0915 - 1035	Oil Fuel System Th. (1)	* Lifeboat equipment & Sails. Th. (2)	* Lifeboat Equipment & Sails Th. (2)	* Boiler Flash Up Pr. (3)	Marine Turbine Engine Th. (3)	Heavy Main Engine Parts Pr. (1)
2nd Period 1045 - 1200	Oil Fuel System Th. (1)	Heavy Main Engine Parts Pr. (1)	* Lifeboat Equipment & Sails Th. (2)	* Boiler Flash Up Pr. (3)	Marine Turbine Engine Th. (3)	Hygienic & First Aid Th. (1)
3rd Period 1300 - 1500	* Heavy Main Engine Parts Pr. (1)	Heavy Main Engine Parts Pr. (1)	* Ship Maint- enance & Cleaning Tanks Pr. (2)	* Aux. & Deck Mach- inery Pr. (3)	Heavy Main Engine Parts Pr. (1)	Boat Handling and Pulling Pr. (4)
4th Period 1510 - 1600	* Heavy Main Engine Parts Pr. (1)	Heavy Main Engine Parts Pr. (1)	* Ship Maint- enance & Cleaning Tanks Pr. (2)	* Aux. & Deck Mach- inery Pr. (3)	Heavy Main Engine Parts Pr. (1)	* Boat & fire Drill Pr. (5)

T.S. "BHADRA"

GENERAL PURPOSE MANNING TRAINING SCHEME - TIME TABLE FOR THE DECK CREW

Third Week.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st Period 0915 - 1035	* Tank Operations Th.(1)	Auxiliary Machinery Th.(3)	Auxiliary Machinery Th.(3)	Auxiliary Machinery Pr.(2)	Deck Machinery Pr.(3)	Marine Diesel Engine/Diesel Generator Th.(4)
2nd Period 1045 - 1200	* Tank Washing Th.(2)	Auxiliary Machinery Th.(3)	Auxiliary Machinery Th.(3)	Auxiliary Machinery Pr.(2)	Deck Machinery Pr.(3)	Revision Th.(5)
3rd Period 1300 - 1500	* Diesel Generator Parts Pr.(1)	Auxiliary Machinery Pr.(2)	Auxiliary Machinery Pr.(2)	Auxiliary Machinery Pr.(2)	* Launching Life-boats, Boat Pulling and digging Sails. Pr.(4)	Revision Pr.(5)
4th Period 1510 - 1600	* Diesel Generator Parts Pr.(1)	Auxiliary Machinery Pr.(2)	Auxiliary Machinery Pr.(2)	Auxiliary Machinery Pr.(2)	* Launching Life-boats, Boat Pulling and digging Sails. Pr.(4)	* Boat & Fire Drill. Pr.(6)

\* Denotes Combined Classes of Deck, Engine and Saloon crews.

Th.(No.) - Denotes Theoretical Class, with corresponding number of the subject in the Curriculum.

Pr.(No.) - Denotes Practical Class, with corresponding number of the subject in the Curriculum.

1035 - 1045 - Break  
1200 - 1300 - Lunch Break  
1500 - 1510 - Break  
1610 - 1645 - Evening Activities & Games.

DEPT OF THE PROCEDURE BEING LAID  
DOWN FOR ENFORCING "ONE CALL SYSTEM"  
AT THE SEAMEN'S EMPLOYMENT OFFICE,  
CALCUTTA.

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(i) On receipt of an indent furnished by a shipowner the Director shall arrange to call the requisite number of seamen in the order of rotation.

(ii) In the event of:

(a) The requisition notice for supply of crew not having been received by the Director, Seamen's Employment Office, Calcutta from the shipowners earlier than the stipulated period of 15 days as prescribed under Rule 29 of the Indian Merchant Shipping (Seamen's Employment Office, Calcutta) Rules, 1954 or

(b) any emergency:

the Director, Seamen's Employment Office, Calcutta may issue call notices to such seamen as are locally available or arrange to hold local selections by informing seamen by such other means as may be considered expedient.

(iii) One call letter against one vacancy shall be sent to the seamen concerned under Express Delivery and Certificate of Posting at the address mentioned by him in his application for Registration or to such other address as he might have intimated subsequently.

(iv) If the seaman is not in a position to respond and fails to attend the muster, he must inform, within 14 days from the date of muster, the Director, Seamen's Employment Office, Calcutta stating the reasons for his absence supported by documentary proof and indicating the date he will be available for employment.

- (v) If the reasons for his absence are considered satisfactory, he will be allowed by the Director, Seamen's Employment Office, Calcutta such period of time as is considered reasonable for reporting again for employment.
- (vi) On the expiry of the period of time granted, he will receive only one more call notice without any loss of seniority under Regd. Post Acknowledgement Due, and if he does not report for employment on receipt of that call, his registration is liable to be cancelled.
- (vii) If he fails to communicate to the Director, Seamen's Employment Office, Calcutta within 14 days from the date of muster mentioned in the initial call, his name shall be placed in the 'Dormant Register' for 3 months from the date of muster, and if he does not report within that period, his registration shall be cancelled.
- (viii) If he reports within 3 months his seniority for employment shall be brought down to the date of his reporting and he will be issued with a <sup>Call</sup> Final On turn, under Regd. Post Acknowledgement Due. If he fails to report personally for employment to the 'Final Call', also his registration shall be cancelled.
- (ix) The Director shall cancel the registration of seaman who fails to get selected at the muster on three consecutive occasions due to adverse reports in respect of his ability and or conduct provided that his case has been reviewed by the Disciplinary Committee and the Director, Seamen's Employment Office, Calcutta is satisfied that there is no possibility of that seaman being accepted by any shipowner.
- (x) Seamen not in possession of valid documents shall not be considered for employment.

DRAFT OF THE PROCEDURE BEING LAID  
DOWN FOR ENFORCING "ONE CALL SYSTEM"  
AT THE SEAMEN'S EMPLOYMENT OFFICE,  
BOMBAY

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NOTICE OF INDENT BY SHIPOWNERS/AGENTS:

1. Shipowners/Agents will normally submit their indent for category-wise requirements of seamen to the S.E.O. at least 15 days in advance of the date of Muster. Wherever possible, such indent will be submitted 21 days in advance.
2. In case of urgent requirements or inability of Shipowners/Agents to give the minimum of 15 days notice, the S.E.O. will accept indent at shorter notice and issue necessary call notices.
3. Where it is not possible for Shipowners/Agents to give the required notice as above, the S.E.O., will, on request of the Shipowners/Agents, furnish the names and addresses of the seamen on turn for employment, so that telegraphic advice can be sent to such seamen at the expense of the Shipowners/Agents, if they so desire.

CALL NOTICES BY SEAMEN'S EMPLOYMENT OFFICE

4. The S.E.O. shall send Call Notices to seamen (except those under medical investigation or under suspension) on turn within two working days on the receipt of an indent for Muster.
5. All Call Notices to be issued by the S.E.O. shall be by Registered A/D.
6. All Call Notices issued by the S.E.O. shall be on the basis of one call for each available job as per the indent.

NON-RESPONSE BY SEAMEN.

7. A Seaman, who is unable to attend the Muster for which he has received a Call Notice, shall within 3 days of its receipt, inform the S.E.O. in writing or by telegram of his inability to attend the Muster together with the reasons thereof.
8. Seamen, who has received a Call Notice and has informed the S.E.O. as required under (7) above, of his inability to attend the Muster, shall submit his written explanation giving reasons for non-attendance duly supported by documentary evidence, so as to reach the S.E.O. not later than 7 days from the date of the Muster.

9. Where the reasons for non-attendance given by the seaman concerned under (8) above are found by the Director, S.E.O. to be compelling, genuine and valid, such seaman will be eligible to be issued a Call Notice for the next Muster.
10. A seaman in receipt of a Call Notice -
- (a) who fails to attend the Muster without intimation and reasons;
  - OR
  - (b) who fails to submit written explanation together with evidence within the prescribed time as required under (8) above:
  - OR
  - (c) whose reasons for non-attendance as given to the Director, S.E.O., are not found by him to be compelling, genuine and valid;
- shall be advised in writing that no further Call Notice shall be issued to him, nor shall he be offered further employment, pending issue of showcause notice and enquiry.
11. A seaman whose Call Notice has been suspended as provided herein, shall, within seven days of such suspension, be issued a notice by the Director, S.E.O., by Registered A.D. calling upon him to show cause why his registration should not be suspended or cancelled.
12. On his failure to tender a written explanation together with documentary evidence, if any, in reply to the showcause notice within fifteen days of its receipt by the seaman concerned or show cause notice having returned undelivered, his registration shall stand cancelled forthwith.
13. On receipt of the seaman's explanation to show-cause notice within the prescribed time, his case will be referred by the Director, S.E.O., to the Sub-Committee (General) of the Seamen's Employment Board.
14. Where the seaman under suspension of Call Notice is exonerated by the Sub-Committee (General) of the S.E.B., his seniority will be restored as at the date of original suspension of Call Notice.
15. The Sub-Committee (General) of the S.E.B. after taking into account all the relevant circumstances of the case, will suspend for a prescribed period or cancel the registration of a seaman as it may deem appropriate and necessary.
16. A seaman who is aggrieved by suspension or cancellation of his registration will be entitled to prefer an appeal as provided in the I.M.S. (Seamen's Employment Office, Bombay) Rules, 1954.

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